

# VICTORIAN ENTOMOLOGIST



Journal of  
The ENTOMOLOGICAL  
SOCIETY of VICTORIA

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price

# THE ENTOMOLOGICAL SOCIETY OF VICTORIA.

## MEMBERSHIP

Any person with an interest in Entomology shall be eligible for Ordinary Membership. Members of the Society include professionals, amateur and student entomologists, all of whom receive the Society's Journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and study groups, of libraries and of University and Departmental staff.

## OBJECTIVES

The aims of the Society are:

- (a) to stimulate the scientific study and discussion of all aspects of Entomology,
- (b) to gather, disseminate and record knowledge of all Australian insect species,
- (c) to compile a comprehensive list of all identifiable Victorian insect species, and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in Entomology.

## MEETINGS

The Society's meetings are held at Clunics-Ross House, National Service Centre, 191 Royal Parade, Parkville, Victoria, at 8 P.M. on the second last Friday of even months, with the possible exception of the December meeting which may be held earlier.

Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with like interests. Forums are also conducted with short addresses by members on their particular interest so that others can participate in the discussion.

## ANNUAL SUBSCRIPTIONS

Ordinary Member	10.00 (Aust.)	Approx 11.50 (U.S.)
Student, Associate Member	5.00 (Aust.)	" 5.75 "
Journal posted surface mail		

No additional fee is payable. Associate Members, resident at the same address as, and being immediate relatives of an Ordinary Member do not automatically receive a copy of the Society's publications, but in all other respects rank as Ordinary Members.

## CONTRIBUTIONS TO THE "VICTORIAN ENTOMOLOGIST"

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of Entomology for publication within the Journal. Contributions are not restricted to members, but should be responsible and original. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed, it would be of great assistance if they were typed on A4 (International quarto) paper, single spaced with double spacing between paragraphs, a margin on the left of 1 cm and on the right 5 mm.

February 1979

The Victorian Entomologist

Minutes of the Council Meeting held at Clunies-Ross House on  
Friday 8th December, 1978.

Dr.T.New chaired the meeting which opened at 8 P.m.

Councillors present were : A.Calder, P.Carwardine, "Zoo" and Mary Le Souef, S.McEvey, R.Manskie, and David Stewart with apologies from R.Conaron and R.Manskie.

Minutes of the previous Council Meeting were passed on the motion of M.Le Souef and seconded by D.Stewart.

Correspondence was received from Ento.Soc. of Australia, (NSW), Ento. Society of Queensland, Gas & Fuel Corp., Solar Focus Bulletin, Kewer Libri, Per Tinboat, J.Fox, Sciences Club and Ian Clunies-Ross Foundn.

Treasurers Report. There were 69 financial members and a credit balance of \$508.40 in the General Account together with a credit balance of \$242.86 in the Publications Account.

Editors Report. The production and despatch of the new journal to be printed by the Clunies Ross House Printing Service was discussed. It was thought that the present problems of enveloping and posting might be overcome if they were, in the future, sent from Rosebud.

Excursions. Shane McEvey gave a brief report on the Glenelg excursion while Peter Carwardine explained that he had the camp booked for the Lisola excursion on the 23rd and 24th of February, 1979.

December Meeting. Mr. Paul Genery is to speak and show some film on live organisms under the microscope. This is to be the Christmas meeting which includes supper.

February General Meeting is to take the form of a Members forum.

Discussion also took place on means of increasing membership and topics for future meetings, closing at 9.45 P.M.

-ooOoo-

Minutes of the General Meeting held at Clunies-Ross House on  
Friday 15th December, 1978.

Under President Dr.Tim New, the meeting opened at 8.15 P.M. with 23 members and visitors welcomed.

Apologies were received from "Zoo" and Mary Le Souef and Nigel Quick.

The minutes of the previous meeting were taken on the motion of Fred Hallgarten and seconded by John Hallgarten.

Correspondence: Apart from the usual news bulletins from the Ento.Soc. of Aust.(NSW) and the Queensland Ento.Society there was a half year calendar from the Clunies-Ross Memorial Foundation and a request from Current Book Distributors. But of special interest to members were Christmas greetings from Julie Field announcing the birth of their second daughter, Michelle Vanessa, obviously a very lepidopterist offspring !

February 1979

The Victorian Entomologist

Treasurers Report. Our Treasurer, Bob Condron, reported that there were 69 financial members with a credit of \$661.04 in the General Account and \$342.26 in the Publications Account.

Excursions Reports on recent excursions will be published elsewhere in the Journal. Thanks were expressed to Shane McEvey for the trouble he had gone to in organising the Stratford trip.

Book Review. Peter Carwardine commented on a recent book of particular interest to lepidopterists-"Encyclopedia of the Butterfly World".

Guest Speaker.

Mr. Paul Genery and Mr. Ken Strong were welcomed on behalf of members by the President. Paul gave a comprehensive <sup>and clear</sup> on the subject before he showed the film on "Live organisms under the microscope". In answering questions, he used the blackboard to further show members some remarkable aspects of microscopic photography. Thanks were extended by Dr. Tim New on behalf of members present.

Supper was much enjoyed at this festive season with the exchange of Christmas greetings and the general wish of good collecting for the coming year.

The meeting closed at 9.30 P.M.

The next General Meeting will be held on 16th. February, 1979

-ooooo-

### A New Lepidoptera Journal.

The Aurelian. Vol.1 No 1., September 1978

(To be published quarterly by the Saruman Museum, Beckley, Sussex, England, overseas subscription £3.50 (Sterling)).

This new journal is primarily envisaged for taxonomic research, but it is hoped to include articles on any aspects of Lepidoptera, from short notes and requests for information on longer scientific papers. The journal is of A4 format and offset printing. The first issue (16pp) includes the first part of a thoughtful article on 'utterly dispersal and shifting continents' by Paul Smart, which advances the hypothesis that the greatest evolutionary divergence took place in the Ethiopian region. Also included are a paper on 'the rediscovery of Adelpha ethelda Hewitson (Nymphalidae) in north-west Ecuador' by Chris Samson, two book reviews and several 'notes and requests'.

Tim New.

Presidential Comment on the Rise in Subscriptions.

This issue of the Victorian Entomologist brings a change in format, together with an innovative change in its method of production. It also brings notice of a substantial increase in subscription rates: Both topics have been discussed in detail at recent council and general meetings but, principally for the enlightenment of members who attend meetings infrequently, I feel that some explanation of these changes-and the rationale behind them-should be given.

Most of you will know of the various difficulties experienced in recent years over the production of our Journal-and the job of Editor is, I think, the hardest one in our Society: the editor is the first to be blamed for 'sloppy' or late journals, or for typing errors or mistakes in articles, and only occasionally gets a grudging 'well done' when no mistakes are obvious! I feel that we have been singularly lucky in the dedication shown by our editors, but would like to set out for you how the Journal has been produced for two years preceding this issue. The editor (either Andrew Calder or "Zoo" Le Souer) typed the stencils himself-a considerable amount of work. These were then posted to La Trobe University where they were run and the pages collated and stapled. The journals were then taken to the National Museum, where they were enveloped and posted by Andrew Calder. In other words, the production has been costly on time-both in production time and the various 'travel' phases'. Council has looked at various ways of trying to streamline production, especially in view of further postage increases being likely in the near future.

Council is unanimous in believing that production of The Victorian Entomologist is one of the most important activities of our Society. Especially for country members, it forms the major contact with other enthusiasts, and also contains articles and notes of both interest and scientific value. They believe that the journal should be strengthened-made larger and of wider appeal-and should also be improved in appearance. This costs money.

At 1978 subscription rates, the 1978 Journal costs are covered-but Council recently rescinded the bylaw limiting the proportion of annual subscriptions that may be spent on the journal. Rather than accept a shorter journal for 1979, and still maintain the 1978 production standards (and at the same time eat deeper into our finances), council decided that some change was warranted. Accordingly, the journal is now commercially duplicated from typescript, by a method which allows for production of drawings and photographs and which thus allows us greater versatility than before. The reduced size format will mean less wastel space and cheaper postage. Although the journal is still being typed by the editor, council believed that financial provision should be made for commercial typing in case of emergency.

Accepting, then, that continued improvement of the journal is both warranted and costly, two courses were open:-

- a. A small increase in subscription, with a strong possibility that another increase would be necessary within a year or so.
- b. A larger increase, with the confident hope that this will give the society sufficient 'buffer' for at least three years.

After much discussion, council decided to recommend the latter course and this decision was endorsed by the general meeting in October.

I hope this background will put at least some minds at rest! I feel

February 1979

The Victorian Entomologist

that the new journal offers us considerable scope for the future. But its success is dependent on your support; even if you feel unable to contribute notes or articles, or anecdotes of your entomological experiences, why not let us know what you would like to see in it? Are there any topics you would like to see any articles on? If so, please let the Editor or me know, so that the Council can endeavour to make The Victorian Entomologist both useful and interesting to all members of our Society.

T. New.

### Glenaladale Excursion.

Because of problems associated with his extended trip to southern Tasmania, our leader on this excursion was not able to have a report ready in time for this journal. Shane McEvoy, has however, agreed to prepare a species list of material recorded from this area for the next issue.

Those participating were: Tim and Nesta New, Peter Kelly, David Stewart and Nola and family, Shane McEvoy, Mark Hillen and mates, Andrew Cullen, Ian MacKinnon, R. Vargi, "Zoo" and Mary Le Souer.

As we felt that it was a bit far for just one night, Mary and I left on Friday, taking the rough forestry track at the Billy Goat Bend sign on the Largo Road. We eventually arrived at the camp site about six to find Shane and his friends already setting up camp, having arrived earlier in the day.

It was a grassy spot amid a forest of thin wattles and the usual Gippsland trees and shrubs. The track led to the edge of the escarpment with a magnificent view up the Mitchell River valley, the river itself hundreds of feet below, placid till it reached the boiling rapids for which this part of the river is noted.

Late in the night David and Nola Stewart arrived but, with their experience, they quickly set up camp for the night.

Next morning, David, with his commando training, soon had organised suitable toilet facilities among the dogwood and inquisitive birds. Later in the morning the rest of the party turned up, soon settling themselves down in suitable openings among the trees.

After lunch most took to the track along the cliff top down to a gully which led to the river bank. However, as there was a ten foot drop over a rock to the bank itself, only the younger, more agile numbers took advantage of the rope Shane had provided to overcome this obstacle. Unfortunately, it was not till we had returned to camp that we learnt from a party of Paynesville geologists that there was a rough track down the cliff face a little further along the track.

Loentime, Mary and Mark had taken their nets back along the road where there were patches of *Pteridia* among the forest openings which attracted a few butterflies and other insects.

Although the object of the excursion was to record as many insects as possible, it was obvious that no small benefit from the occasion came from the many individual and group discussions which took place in the

February 1979

The Victorian Entomologist

relaxed atmosphere of the camp. We were entertained during the evening with some of Tim and Nesta's exciting adventures in South America, Tim touching on various aspects of interest to individual members.

The camp broke up on Sunday morning as collecting in this area was mainly unproductive. In spite of this, some members were happy with the material that they had taken as the following list would indicate:

Tim New.

"I swept for parasitic Hymenoptera : results are generally poor and only some 30 specimens were collected. These included Eulophidae, Encyrtidae, Plescomalidae, Megastichus (Tosymidae and a single eucolline Cynipoid - together representing about 16 spp."

Peter Kelly.

"Paropsines collected on the Club Excursion-1st., 2nd., 3rd., Dec. 1978

Traralgon      *Paropsis atomaria* Oliv.  
                  *Chrysophtharta variicollis* Chap.  
                  "                      Sp. (113).

Rosedale      *Paropsis atomaria* Oliv.  
                  *Chrysophtharta nobilitata* Erichs.  
                  "                      Sp. (119).

Sale            *P. atomaria* Oliv.  
                  *P. variicollis* Chap.  
                  *C. nobilitata* Erichs.

Stratford    *P. atomaria* Oliv.  
                  *C. variicollis* Chap.

Fernbank    *P. atomaria* Oliv.  
                  *P. charyodis* Stal.  
                  *Paropsisterna brunnea* Marsh.  
                  *C. variicollis* Chap.  
                  *C. nobilitata* Erichs.  
                  C. Sp (108)  
                  C. Sp. (112)

Glenaladale *P. atomaria* Oliv.  
                  *C. variicollis* Chap.  
                  *C. decolorata* Chap.  
                  *C. M-fuscum* Boh.  
                  *C. cloelia* Stal.  
                  C. Sp. (119)  
                  *Trachymela* Sp. (136)

David Stewart.

Coleoptera    Curculionidae (weevils) 3 sp.  
                  Cerambycidae (longicorns) 4 sp.  
                  Lucanidae (green stag) *Lamprina* sp.  
                  3 other genera, unidentified.

Hemiptera    (lice)      1 sp.

Acarina       (mites)    1 sp. feather mite.

Heteroptera (bugs)    Scutelleridae sp.

A.A. Calder.

<u>Scarabaeidae</u>	Cheiroplatys sp.		
<u>Cerambycidae</u>	Pempsamaca dispersa Newman		
	" pygmaea "		
	" vestita Pascoe		
	Amphirhoe sloanei Blackburn		
<u>Alleculidae</u>	Chromomoea eleanora Carter		
<u>Anthicidae</u>	Lemodes atricollis Ob.		
<u>Staphylinidae</u>	Stenus pustulifer Fauvel		
<u>Clariidae</u>	Phlogistus eremita Blackb.		
	Elcalle elongata Macleay		
<u>Hydrophilidae</u>	Berosus involutus MacL.		
<u>Eytiscinae</u>	Lanceotes lanceolatus Clark (at light)		
	Copeolatus australis " " "		
<u>Elatерidae</u>	Lingana illinitus " "		
	Comoderus ingens Blackbn. " "		
	" basalis " "		
	" sp. " "		



RECEIVED 1979 FEB 21

President Lin New and others  
relaxing.



J.C. & K.M. Le Souef.

epidoptera Toxidea parvula (Plotz) (KM)  
 " doubledayi (Feld.) (KM)  
Trapezites phigalioides Waterh. (KM)  
Hesperilla donnyia patmos "  
Paralucia aquifer (Blanch) [D.Stewart]  
Candalides acastus (Cox)  
 " hycinthinus hycinthinus (Semper) (D.Stewart)  
 " xanthopilos (Hübner) (KM)

There are some 36 moths still awaiting identification with 27 specimens of coleoptera, also taken at the LW light during the Saturday evening.

-oo0oo-

#### ON THE GRAPEVINE

Ross Field is to be congratulated on the results of his first session at the Berkeley University, passing with 2 A's and 2 B's. During his vac. he has been checking with much interest on the local butterflies.

David Stewart spent his Christmas break at home for a change. Among various catch up chores he found time to set 30 mites. Doesn't sound much but, although quicker now, the first dry specimens sometimes took 2 hours to set.

Ray and Nola Manskie again paid a visit to Maryborough, Queensland. They will have a note in the next Journal on their collecting results. They arrived home to the joyful news that daughter, Sue, had just passed her exams as a nursing sister.

An unexpected visitor to Blairgowrie recently was John D'Alles of Sydney. On his way to Sorrento for a wedding, he called in for a cup of coffee and a swift look at the collection. He proudly displayed newly described species, Paralucia spinifera and Pseudodiosas arkana. He had earlier also shown them to David Crosby.

Yet another pleasant surprise was the visit to Blairgowrie in early December of another Sydneysider, Greg Daniels, who, accompanied by Alice and Joan, were returning from a Borbylia expedition to Broken Hill. They made their way back to Sydney through Gippsland and the coast.

Extract from our iceblock member in the U.K. "Below freezing most days and snow most nights. I am surviving well though-determined to outlast the "small tortoiseshells" hibernating on the ceiling. Andrew Atkins is still working on the Hesperidae in his Somerset attic.

Tim and Nesta New thoroughly enjoyed an unhurried trip up the east coast during the Christmas vac. After the trauma of his car being taken from the Uni car park, he is now again mobile with a new car.

#### STOP PRESS.

Watch out for the Common Albatross, Anous nauticus etc. There is a migration down the coast from N.S.W. Specimens have so far been taken at Mt. Piper, Red Hill and Blairgowrie. These and any others will be dealt with in more detail by Nigel Quick in a later journal.

February 1979

The Victorian Entomologist

Obituary.

Members who know him will be shocked and saddened to learn of the sudden death of L.J. (Ted) Harris at his home in Kuranda, north Queensland on Sunday 21st. January, 1979.

Ted, who had involved himself in citrus growing at Murrabit, Victoria, soon after arriving in Australia from the U.K., had collected Lepidoptera from that outset. But it was not until the 1940's when he and a partner, Ted Alston, set up a tulip farm in Heatherton Road, Springvale, that he became known to many of us.

A farm of this type allows little leisure, but, in spite of petrol rationing, he managed, what were in those days, some lengthy trips, including such areas as the Little Desert, the Saw Saw Plateau and other Victorian alpine areas. Autumn nights frequently saw him take to the nearer hills in heathland country after specimens of which he had an extensive collection.

His great interest in Lepidoptera doubtless influenced his decision to move north to Kuranda, where he and Ted Alston established "Mountain Groves" orange orchard on the Kenney Highway just outside the township. Following the tragic death of his partner, it became necessary to sell out and Ted moved to a new home in Black Mountain Road where he set up a flourishing plant nursery. At the time of his move, it became expedient to consider proper preservation of the now vast collection, housed in a number of very beautiful cabinets which he himself had constructed. Accordingly, he made the decision to present the entire collection to the Entomology Department of the James Cook University at Townsville.

From the time his partner died, however, shock and the stress of moving and starting afresh had visibly drained him, physically and emotionally and he had for some years been in indifferent health.

A quiet, retiring and humble person by nature, Ted enjoyed nothing more than hosting the many visitors from the south, and it is they and his neighbours, who will greatly miss him.

Nigel Quirk.

Another of our older members has reason to mourn the death of Ted Harris. Seeing his name in "Wild Life" many years ago, Dave Holmes borrowed his father's truck and drove to Springvale to see him. So began his continued interest in entomology.. (Ed.)

LICOLA EXCURSION Feb. 24th and 25th. Travel via Princes Hwy. to Rosedale, then via Reywood to meet at Licola store at 11 A.M. 170 miles (270 km). The camp is 12 miles (19 km) north on the Tamboritha Rd. Accommodation is in 6 8-bed huts, pillows and mattresses provided. Take linen and blankets or sleeping bags. Refrigerator, stove, hot & cold water provided. Cost approx 44 each.

ANNOUNCEMENT Volume 1 & 2 of The Victorian Entomologist. Peter Carwardine.

NEW TELEPHONE NUMBER-Nicholas Haslem-now-818 1748.

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## CONTENTS

Minutes of Council Meeting - 8.12.78 .....	1
Minutes of General Meeting - 18.12.78 .....	1
A New Lepidoptera Journal, T.R.New .....	2
Presidential Comment on Rise in Subscriptions: .....	3
Glenadale Excursion .....	4
Excursion to Licola .....	8
On the Grapevine .....	7
Obituary, Ted Harris, .....	8
Wanted .....	8
New Telephone No. ....	8

## OFFICE BEARERS

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Councillors-Mrs.Joy Burns, Mrs.Mary Le Souef, Messrs.A Calder, P.Carwardine, J.McEvey, R.Manskic, O.Rogge and D.Stewart.

## DIARY OF COMING EVENTS

Friday, 16 February, 1979, Members' Forum (annual Subscriptions due)

30 April, 1979 Address on Aquatic Insects.

30 June, 1979, Annual General Meeting, Presidential Address.

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The reproduction of taxonomic material within the journal shall not constitute formal publication.

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In the Shower at the Lightning Ridge Tram Hotel appears "Share it with a friend". How about you sharing your entomology with a friend and so add to the membership of the Society.

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VOL [9] NO 2.

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April 1979

Victorian Entomologist

Minutes of the Council Meeting held at Clunies-Ross House on  
Friday 9th February 1979.

Dr.T.New chaired the meeting which opened at 8.03 P.M.

Councillors present were : A.Calder, Mrs.Joy Burns, Peter Carwardine, "Zoo" Le Souef, Ray and Nola Manskie and David Stewart. There were apologies from Bob Conaron, David Crosby, Shane McEvey and Otto Rogge.

Minutes of the previous Council Meeting were passed on the motion of "Zoo" Le Souef and seconded by Peter Carwardine.

Correspondence was received from Entomological Society of Queensland, Iowa State University and Daniel Henot.

Treasurers Report. This was unavailable due the the absence of the treasurer.

Editors Report. Council was very pleased with the new production of the Journal. Thanks were passed to the editor. There is sufficient material for the next publication of the Journal on hand. There was some discussion on the production of folders to contain them.

Excursions. The Licola weekend excursion is to take place on February 24th and 25th.

Diary of coming events. Subject to unforeseen alterations at the time, the following topics have been decided upon for future meetings:

Feb.16th. A members forum night.

April 20th. Dr M.Malipatil will speak on aquatic insects and the work of a survey team.

June 22nd. Annual General Meeting with the President's Report ("Chilian National Parks")

August 24th. Discussion on Forest Entomology.

October 19th. Jim Hutchinson will speak of Dragon Flies of the Alligator River region.

December 14th. Members Christmas night.

General discussions then followed on nominations for the general election and the future of the Society's library.

The meeting closed at 9.25 P.M..

The next Council Meeting will be held on Friday March 23rd. at 8 P.M.

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Minutes of the General Meeting held at Clunies-Ross House on  
Friday, 16th February, 1979.

There were 29 members and visitors welcomed by our President, Dr. Tim New to the meeting which opened at 8.10 P.M.

Apologies were received from David Crosby and Nigel Quick.

Minutes of the previous General Meeting were taken as read on the motion of Shane McEvey and seconded by Ray Manskie.

Correspondence as published in the Council Meeting minutes plus News Bulletin from the (Queensland Ento.Society.(February, 1979).

April 1973

Victorian Entomologist

Treasurer's Report : Our Treasurer reported that there were 70 financial members with a credit of £568.41 in the General Account and £ 242.26 in the Publications Account. The Balance Sheet for 1978 will appear in the Journal at a later date.

new

Editor's Report: Response to the/new format of the Journal was pleasing with several constructive alterations from members present.

Excursions: Andrew Calder was placed in charge of members attending the Licola camp weekend. Discussion then proceeded on future excursions.

Members contributing to the Members Forum Night were :

Kelvyn Dunn displaying a case of assorted butterflies collected during October, 1978 in and around Cairns and Townsville, including such well-known spots as the Cascades at Cairns and Castle Hill and Magnetic Island, Townsville. He took 248 specimens in the 10 days adding 30 species to those taken on his previous trip

Bob Condon displayed Aprias paulina gr taken on the wing at Box Hill North, Victoria.

Gordon Burns displayed a store box of meticulously set puprestids.

Dr. Tim New showed a new version of a hinged frame beating net.

Andrew Calder a display of Acacia galls.

Then followed an interesting interlude by four of our members:

David Stewart showed a series of coloured slides and gave a talk on mites and lice. As an enthusiastic and competent aviculturist, he took up the study of the parasites found on his birds. This has led to a wider field, as he now collects roadside victims as well. This, with his palaeontology and daily building activities keeps him really busy !

Peter Kelly spoke on his task of listing the life histories of his Piroris beetles, illustrating the egg, larvae and the insect itself as he has been doing for some years, adding still to his very large volume of material on the subject. Like Tim New, he uses a collapsible sweep net for collecting, so much simpler than chasing about with a butterfly net. They are also much less obvious in these days of diligent rangers. The eggs and larvae are bred out in coffee jars.

Joy Burns showed a small selection of her later slides, always a great pleasure to see. She takes them when the opportunity offers as she accompanies Gordon on his puprestid forays.

Andrew Calder, working on his thesis on the subject, gave a professional dissertation on the Glateridae with illustrations of some local and exotic examples of these widely known "click beetles".

These members were thanked for their efforts by our President.

The meeting closed at 10 P.M. with the next General Meeting on 20th April



April 1979

Victorian Entomologist

Minutes of the Council Meeting held at Claries-moss House on  
Friday 23rd March, 1979.

Dr.T.Hew chaired the meeting which opened at 8 P.M.

Councillors present were :A Calder,P.Carterline,D.Crosby,Mary &  
"Zoo" Le Souter,Nola and Ray Manskie,D.Stewart,Joy Burns,Shane McEvoy.

Apologies were received from Bob Condron and Otto Ruge.

Minutes .The passing of the minutes of the previous meeting was  
deferred awaiting their publication.

Correspondence has been received from :

World Wilderness Congress.  
Ent.Soc of Aust.(M.S.A.).  
Jacques Cille.  
Angus and Robertson Bookshops.  
Colind-Alec.  
Aust.Nat.Parks and Wildlife Service. (Report-1977-1978)  
State Library of Vic.

Treasurers Report-deferred.

Editors Report- Journal is well balanced for the next issue. The  
costing of the Journal was as has been expected.

Excursion Report- Lincoln-is was successful although lack of  
members attending caused a financial problem. Coll cards results to  
be found elsewhere. There was discussion on one day excursions in  
preference to those of longer duration.

Enquiries are to be made regarding winter weekend excursions to  
La Trobe University, Monash, the National Museum and other institutions.

General- There was some discussion as to the fate of the club library  
nominations for the ACM and the progress of the Entrecs Scheme.

Next Council Meeting May 18th.

Meeting closed at 9 P.M.

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PLEASE TAKE NOTE.

1979 SUBSCRIPTIONS ARE NOW DUE !

April 1979

Victorian Entomologist

Butterflies of Some Gippsland Rain Forests.Shane F. McEvoy.<sup>c</sup>

Scattered across Gippsland, many pockets of lush temperate rain-forests stand in quiet gullies and on shaded mountain slopes. These seldom visited forests make a fine alternative for the entomologist who cannot visit the jungles of the north as often as he would wish. Indeed, they are in many ways very similar. Lilly Pilly (*Eugenia Smithii*) and other non-eucalypt trees, make a dense canopy upon which stout lianas hang. On the dark and open floors *Smilax australis* is a common plant as is the black-fruit saw-sedge *Gahnia melanocarpa*. The latter grows in all the forests I have visited (x) including the most western stand at Mount Mooroomb, 40 km west of Bairnsdale.

Searches for the early stages of *Hesperilla mastersi* on the sedge there in August 1977 yielded only a single larva of *A. liothea*. Nevertheless the find represents a new foodplant record for this species. Another incidental record was the discovery of *Heteronychia banksii* larvae on *Carex longebrachiata* in the Billy Goat Bend rainforest (also August 1977). From the four larvae taken, only one adult was obtained on 17th February, 1978 which had been reared on *C. appressa* at Bundooora. The Billy Goat Bend rainforest has recently been visited by members and some interesting specimens were taken on this excursion (Vic. Ent. 9(1): 4-7). In addition to species listed in the report of the trip, other species taken by me at Billy Goat Bend, on that occasion, will be found in the list following. This list also includes species taken by me on other occasions as well as those taken elsewhere in Victorian rain-forests or in neighbouring drier eucalypt forest.

	Rainforests	Drier Euc.ad.
<i>Trapaizites</i> sp. (larvae).....	AM, IC.	
<i>Signeta flammea</i> (Butler).....	AM	
<i>Toxidia peron</i> (Latreille).....		MI
<i>Toxidia douglascyi</i> (Felder).....	DN	
<i>Toxidia andersoni</i> (Kirby).....		JC
<i>Hesperilla liothea liothea</i> (Miskin).....	MM	JC
<i>Hesperilla conrysa patnos waterh.</i> .....	AM	
<i>Hesperilla mastersi mastersi</i> waterh. ....	JC	
<i>Hesperilla ornata ornata</i> (Leach).....	AM	
<i>Graphium macleanianum macleanianum</i> (Leach)...	AM, DN	
<i>Anaphaeis java teutonia</i> (Fabricius).....	JC	JC
<i>Pieris rapae rapae</i> (Linn).....	AM, DN, JC	JC
<i>Geitoneura acantha orea</i> (Guesst).....	DN	AM, MI
<i>Geitoneura klugii klugii</i> (Guer-Menev).....		AM
<i>Heteronychia merope merope</i> (Fab).....	AM, DN	
<i>Heteronychia banksii banksii</i> (Leach).....	AM	
<i>Tisiphone abeona albifasciata</i> waterh. ....	DN, JC	
<i>Vanessa kershawi</i> (McCoy).....	AM, JC	DN, JC
<i>Vanessa itea</i> (Fab.).....	AM	JC
<i>Praedictia culybo</i> (Godart).....		IC, JC
<i>Jaenonius evagoras evagoras</i> (Don.).....		AM, DN
<i>Hyochrysa byzox heulius</i> Miskin.....	AM	
<i>Paralucia aurifer</i> (Machara).....		AM
<i>Neolucia apicula arifolia</i> (Jestw. & Hewit.)..		AM, JC
<i>Xizina otis labialis</i> (Godart).....	AM, DN	IC, JC, MI
<i>Candalides consimilis goodingi</i> (Tindale)....	AM, DN	
<i>Candalides hyacinthinus hyacinthinus</i> (Semper)		JC, MI
<i>Candalides xanthospilos</i> (Hübner).....		MI

April 1979

Victorian Entomologist

- AM : Amphitheatre rainforest, Billy Goat Bend, Mitchell River, NW of Bairnsdale. 29-31/viii/1977; 8-9 /xii/1977; 17 & 22/ii/1978; 1-3/xii/1978.
- DN : Den of Nargun rainforest, Mitchell River, NW of Bairnsdale. 30/viii/1977 ; 7/xii/1977.
- IG : Iguana Creek rainforest: Iguana Creek, NE of Bairnsdale; 29/viii/1977.
- MA : Moornapa rainforest, 40 km west of Bairnsdale, Victoria. 31/viii/1977.
- JO : Jones Creek rainforest, 20 km N. of Genoa, far eastern Victoria, 27-30/xi/1978.
- NN : Nowa Nowa rainforest; Princes Highway, 8 km. south of Nowa Nowa. 6/xii/1977, 17/ii/1978, 28/ii/1978.
- MI : Mallacoota Inlet rainforests in the vicinity of Little Creek and Lowail Creek. 16/ii/1978.

Small growths of Myrsine laevis exist at Billy Goat Bend. These have been searched carefully for early stages of Myrsine laevis, an occasional visitor to eastern Victoria but to no avail.

The largest known stand of temperate rainforest in Victoria nestles in the Jones Creek catchment, north-west of Genoa. Work in this area in late November, 1978, proved very interesting indeed. Few butterflies were on the wing, perhaps because it was too early, but the lush and diverse vegetation soon probably sustained a rich insect fauna that will be more easily observed later in summer. For example H. macleayi larvae were found (final instars) and by early February these had become adults.

In summary then, the rainforests of eastern Gippsland, including those closer to Melbourne, just west of Bairnsdale are truly worth investigation. Though usually small, they are richly defined patches with distinctive character. The larger stands, like the one at Jones Creek, cover several square kilometers and are likely to be of sufficient size to support occasional colonies of vagrant individuals. In any case, interesting faunal records are likely to turn up here, where plant diversity is greatest in contrast to the surrounding eucalypt scrub or woodland. Two such records are given in this article; they are:

- Heteromys (H. macleayi) macleayi (Leach), early stages on Carex longepedunculata sedge, at Amphitheatre rainforest, Mitchell R. (30/viii/77)
- H. macleayi in the Myrsine (Liskin), one larva. Found on Myrsine laevis Robert Brown, in the western most rainforest in Victoria, Moornapa, 40 km west of Bairnsdale. 31/viii/77.

② Shane F. McEvey, Chisholm College, La Trobe University, Bundoora, 3083

(x) The forests visited are listed later as part of the key to symbols used in the species list.

A Queensland Trip for Coleoptera.

By Joy and Gordon Burns.

Having more or less been grounded in Victoria for most of our collecting years owing to pressure of work, it was with enthusiasm that we set off in September on a Coleoptera collecting trip through outback New South Wales and Queensland. We travel in a self-contained campervan allowing us to set our specimens en route.

Owing to inclement weather very little collecting was done until we reached Edungulba where we spent a pleasant seven days with Mavis and Ernie Adams. Although it was too early for that area and the weather was not good, we had a couple of good collecting days on Ernie's property. Although we have been collecting for fifteen years we had never taken a species of the genus Astraeus as it is not well represented in Victoria. However, with the help of Ernie, we were able to take several of these little fellows.

We proceeded north as far as Yengo then south to Brisbane where we met and spent an evening with Richard Zietek and his family. In the new year Richard is hoping to move to north Queensland where he intends to put his collection on show along with cages of breeding butterflies.

From Brisbane we continued south to Stanthorpe and stayed at the beautiful Girraween National Park where on the Sunday we again met and spent a day with Richard. Although the tea-tree was fully in flower, we found that it was apparently still too early for stigs. While in the area we took the opportunity to meet Jean and Bob Marslett.

By this time we had collected very few Euprestids so we decided to head back to the desert country of north west Victoria. After a compulsory hold up of six days at Ray owing to a mechanical breakdown, we arrived in the Big Desert on Cup Weekend where we had a couple of good collecting days before the weather once again changed.

The following is a list of species taken in the desert during that period :-

<i>Agrilus australasiae</i> L & G.	
<i>Hypocis</i> unknown species	1.
<i>Cis</i> " "	2.
<i>Colobasis cuprifer</i> L & G.	
<i>sexplagiata</i> L & G.	
"            unknown species	2.
<i>Stenodroma macularia</i> Don.	
<i>sanguinea</i> Hope.	
(Thom) <i>flavicornis</i> Saund	
" <i>flavicornis</i> L & G.	
(Cast) <i>unicoloris</i> Saund.	
" <i>argillacea</i> Cart.	
" <i>hugonia</i> Cart.	
" <i>carminata</i> Saund.	
" <i>castellana</i> Saund.	
" <i>ornata</i> Don.	
" <i>erix</i> Saund.	
" <i>decolorata</i> Kirby	
" <i>flavicornis</i> Saund.	
" <i>gibbicollis</i> Saund.	
" <i>guttata</i> Bickn.	
" <i>ignea</i> Bickn.	

A Queensland Trip for Coleoptera cont.

Stigmedera (Cast)	iocpilota	L. & G.
"	"	kirbyi Guer.
"	"	kershawi Cart.
"	"	media Hope
"	"	octomaculata Saund.
"	"	octospilota L. & G.
"	"	pallidiventris L. & G.
"	"	parallela White.
"	"	piliventris Saund.
"	"	picta ssp. malleosana Cart.
"	"	recta Saund.
"	"	rufipennis Kirby.
"	"	simulata L. & G.
"	"	vegeta Hope.
"	"	vittata Saund.
"	"	xanthospilota Hope.
		unknown 4 sp.

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ON THE GRAPEVINE.

While President Tim New earlier basked in media glory with his Vegemite investigations and more recently there were the learned dissertations on the ABC Country Hour, by Peter Williams, it is now Llew Goodings turn to appear in the entomological limelight. With his eventual decision to present his collection to the ANIC there has been a spate of comment in newspapers, journals radio and TV, even to an expected mention in the House of Representatives in Canberra.

What a tremendous sigh of relief there was in Canberra when Dr. Ian Common sent of the MCS of his second edition of his Butterflies of Australia to the printer at long last.

It is indeed a rare occasion for a Queenslander to venture to our "deep south" as Victoria is known to those who live in the northern latitudes. It was with some surprise that we had a visit at Blairgowrie recently from Clarence Franzen from Caloundra. His father Ludwig Franzen was a keen collector in earlier days and one of his sons, D. Franzen is a member of the Queensland Entomological Society.

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Poor Autumn Collecting.

Because of the continued dry weather since Christmas, there have been many comments on the lack of both butterflies and beetles during the late summer and early autumn when various species appear at this time of the year.

Apr. 1, 1979

18

Victorian Entomologist

A Search for *Oryis* in Western Queensland.  
J.C. de Souza.

After our 1977 foray into western New South Wales, we continued our task of trying to define the distribution of some *Oryis* species during the 1978 winter, this time in western Queensland.

We began with Lightning Ridge where we had found a *Camponotus* nest without *Oryis* larvae present the year before, in the hope that there might be some this time. No sooner had we settled in at the inn motel at "the Ridge" when we heard on the evening news broadcast that there was a rain depression over Alice Springs moving east. We packed up again and took to the road next morning. We managed to get through the boggy patch at Hebel on the Queensland border and just drove over the last of the gravel roads on the outskirts of Roma when the rain depression arrived.

The old trees with mistletoe we looked at on the way at Birranbundi and elsewhere had every crevice packed with slaters just as we had seen at Kilgitt by the river. There were hundreds under bark and any cover that happened to be on the ground.

Driving west from Roma on the bitumen in the rain, there were slaters at mistletoe along the road with some *O.p. plene* pupae to the small main town, Charleville. Here we stayed two days but despite much searching in various directions, we only found two small colonies of *Oryis* with *Camponotus*, one with 3 larvae and other seven and a pupa. Apparently because of being wet in the rain, only two eventually emerged as *Microgaster*.

After Charleville, we were looking forward with keen anticipation to staying at Tambo. Not far from here is the Salvator Rosa National Park, an area recommended by Dr. H.B. Findale to look at and the site for the NSW September campout on their bird Atlas scheme. However, when we reached the village we learnt that all roads except the highway were closed with the rain, so our collecting was very limited.

Tambo is elevated and towards the western end of the Hargrigo Range. We had taken *Oryis* at Leringaire some 100 miles to the east and had expected that it would probably occur here too with similar density. It was also pointing that we could not explore the district more thoroughly. Our stay at Tambo was one of the odd experiences and meets with on these excursions. We booked a motel unit attached to one of the hotels. It was a freezing cold night with wind, quiet, standing and no heating so we really looked forward to a hot shower to thaw out in the morning. But this was not to be as there was no hot water and with \$364 less in the exchequer we were glad to move on with the warmth of the heater in the car.

We drove north through Blackall to Barcaldine and west to Longreach. The open plains gave way to mallee country with much of the mistletoe associated with the north *Antechinus* *unigen*, the coocoons being singly or in clusters of two or three instead of the larger ones as elsewhere further north. But from Barcaldine there was a large area of box country heavily infested with mistletoe but time did not permit of a proper search. We only took one pupa of *O.p. plene* here.

The Longreach country had little of interest so we continued to Winston. During his ramblings about Queensland, Andrew Atkins had noticed a range of hills not far from the town. With all unsealed roads still closed with the unseasonal rains, we had no alternative

April 1979

Victorian Entomologist

but to stay, so took a van in the comfortable caravan park. It was here that we heard the woes of the many who had been bogged, some for days, along the various roads out of the town.

We soon drove out to the range of hills in sight of the town being assured by one of the locals that "they were out of this world". With permission to enter the property where they were, we drove out over the flats. They were made up of a series of decomposing soft "sandstone" knobs breaking up into small irregular blocks forming a crumbling scree and washing down to the flats below. They were extremely dry with a limited flora in the corridors between the knobs with straggly mulga and shrubs and an occasional fig. The only insects seen were a number of A. java leutonia larvae on Scaevola and a few of the butterflies themselves on the wing. Although of little interest to us, the local news told of a team of archaeologists from the Queensland Museum making a study of recently discovered prehistoric footprints while we were there.

After two days, with the roads drying out, we joined a convoy of cars from the caravan park to make our way to Richmond on the Flinders Highway, the road from Townsville to Mount Isa. As we have found on other occasions, country towns are almost deserted on Sundays with the local population at the local football ground. This was the case at Julia Creek where we had a two hour wait to book in at the hotel, an overheating car preventing us from driving on to Cloncurry, the next town.

Approaching Cloncurry we left the open downs behind and the scenery became interesting again. We were not successful in finding any O.o.plane on the trees by the creek at Cloncurry as we had on the last visit. With an increasing variety of tree and shrubs, we were glad to be on the windy road through the hills to Mt. Isa after days of treeless country. We made our way through the city to the Moonarra caravan park where we had stayed before, a couple of miles out on the road to the dam. Here we set up camp under the lee of a good hilltop with birds and butterflies to watch instead of being shut up in the four walls of a motel or caravan. We were well away from the local "permanents" with their many children and dogs.

First thing, of course, was to see what was flying on the nearby hilltop as I did each day at various times but, being July, the number of species to be seen was a bit limited. On the first occasion, I had the misfortune to miss a female O.zozine wiggling its wings at me on a tree trunk. Apart from this there were only one female O.a. meridionalis, a couple of greasies (A.a.andromacha) Lesser Wanderer, (D.c.petilia), Cane Whites, (A.j.teutonia) and a number of Theclinestus flying round the stunted gums for much of the day. Around the camp were a few N.biocellata and P.d.sthenelus, nothing of any particular interest.

We stayed here for a week, going out each day wandering along the dry creek beds from one mistletoe clump to another. While we did enjoy the warm winter sun the collecting was, to say the least of it, pretty poor. We only managed to find one colony of O.zozine, one of O.oroetes and a few O.o.plane. The O.zozine were among the leaves and bark at the base of a big white gum, many being parasitised by a small wasp.

April 1972

Victorian Entomologist

It was along Spring Creek, later notorious as the site of a double murder, that Mary came across a small colony of G. orpites, larvae and pupae, greatly extending its range of distribution. With the near full moon, there few insects attracted to the M.V light at night.

On the road again for Boulia, we were interested to come across a small Acacia loaded with mistletoe with a number of butterflies flying round it near Dajarra. This was a well established colony of A. longipennis with small larvae to pupae and worn specimens on the wing. Again we entered the open downs country with just an odd stunted tree here and there and it was quite a relief to arrive at Boulia and a forest of gums again..

This is a very much outback little town on the edge of the Channel Country, very tidy and neat and proud of its 'Min Min Light' legend. We put up the tent on the bank of the Burke River in the local caravan park, a pleasant spot indeed, with the voices of the birds along the river. Although it was quite an impressive stream where we camped, it quickly petered out just beyond the bridge at the entrance to the town. The permanent water attracted quite a few birds but the variety was very limited with almost an absence of small ones with the exception of a few finches.

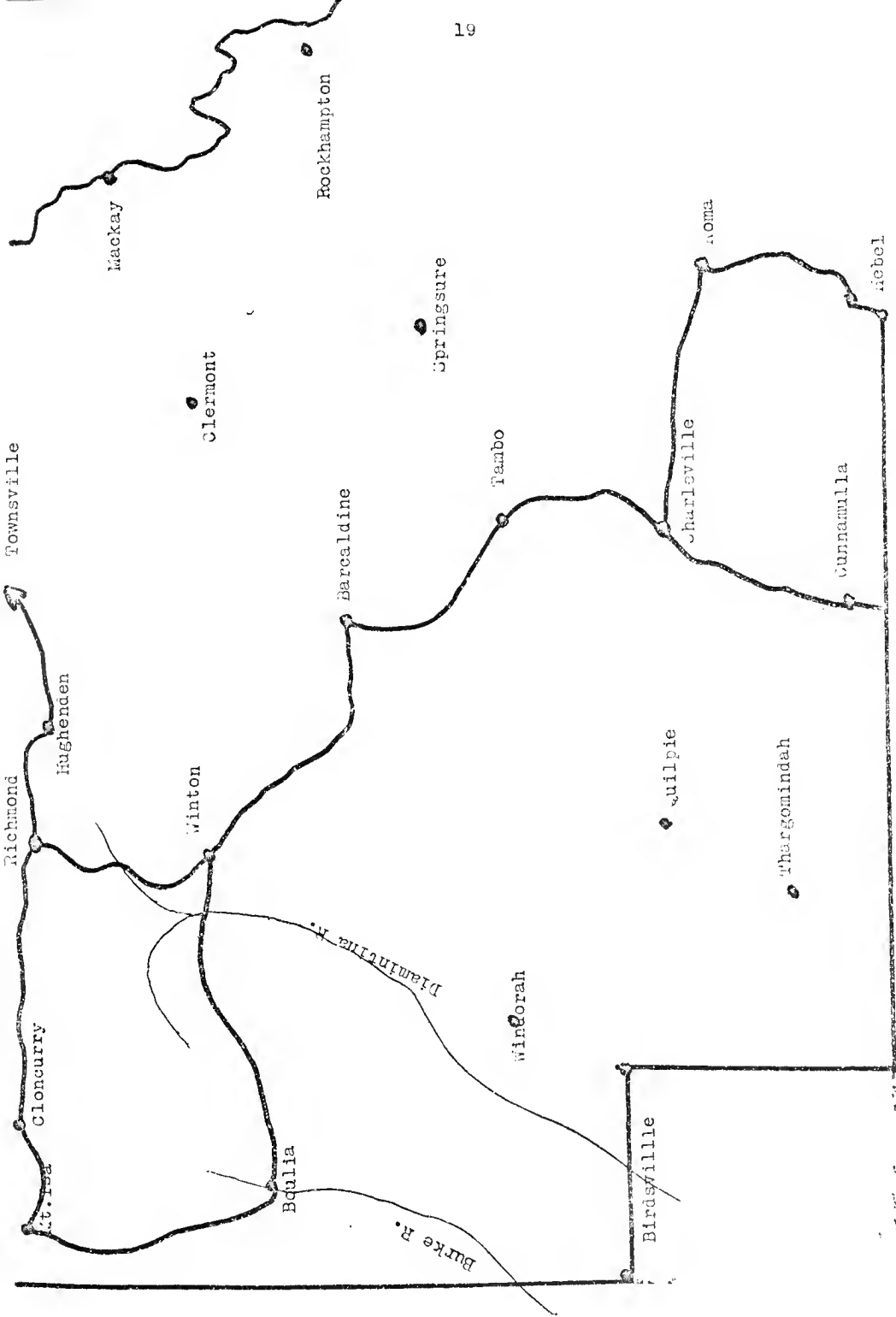
Again there was much mistletoe about but there was no sign of Gyris, in fact we did not even see any eaten leaves of the clumps at all. The only interesting record was G. heathi on the grasslands on the edge of the timber to the north of the town. We were very intrigued by a small moth at the lights resting with the upper wings pointing upwards and the lower ones down over the body. We thought that at least really wayback town would be away from normal collectors tracks, but no, we checked our specimens with some taken by the ever nomadic Red Hawards at the A.N.I.C. in just the same place! They were gipsyia arctusalis (Walker).

Although we spent much time searching for further Gyris on the return journey, there was little of interest except for several G. longipennis larvae at Cunnamulla. If this butterfly is associated with the both anthracis enigma, it will probably occur as far north as Glenosbury as cocoons were observed in this area associated with the same mistletoe.

Revising a small mosquito net cage in a yellow AWD truck ahead of us as we filled up with petrol at Cunnamulla, we were intrigued to learn that they were, indeed, mosquito traps, used by workers from Dr. Pat Marks department in Brisbane checking for encephalitis in feral pigs at Thargomindah.

With thoughts of roast lamb and mint sauce and normal meals again, we started for home via Bourke, with much less time spent in collecting along the road than we had on the outward journey.





April 1979

Victorian Entomologist

Report on Weekend Excursion to Licola.

With the possibility of one or two joining us, Mary and I went to Licola on Friday, 23rd February. The weather was hot and sultry with a little cloud.

There was nothing on the wing in the vicinity of the CCS camp so we drove on up the road, collecting first at Dinner Creek and then on to Lost Plain returning later to set up camp near the Wellington River bridge, below the CCS huts. With the heat, a wallow in the Wellington was much appreciated.

At about 11.30 on Saturday, Andrew Calder joined us and we moved to CCS camp to have lunch and organised things for the night. Laurie and Evelyn Dinn also arrived and, after lunch we all took the road to the higher country. We stopped at Dinner Creek for awhile and then went on to Pameoritha Saddle and Lost Plain. Andrew left us and continued on some distance to the headwaters of the Macalister River to set up his light trap for the evening collecting. He returned to camp about midnight.

We made our way back to the huts late in the afternoon where we were joined by Ray Vagi.

Our UV light attracted only a few moths and small beetles on the two nights we had it on.

Species added to the previous list as follows:

<i>Polionus evagoras</i> ...	Wellington Bridge.
<i>Paralucia aurifer</i> ...	" "
.....	.....
<i>Cryosiphon occultaria</i>	Camp.
<i>Atlixes curvata</i>	"
<i>Castula Doubledayi</i>	"
<i>Neantides labyrinthicus</i>	"

These do not include various insects taken and observed by Andrew Calder near an alpine swamp and much tentree in flower, a contrast to the dry country where we had seen collecting.

On the homewards journey on Sunday morning we collected along the road, meeting again at Bargoynes Gap without success with the elusive *Paralucia aurifer*. Out on the Flats, south of Heyfield, we caught up with Andrew Calder, really spitting fire and brimstone. A passing trailer had thrown up one of the small round pebbles from the roadside leaving him with an opaque windscreen. We followed him in to Rosevale where, as luck would have it, there was one available at a local garage. He was then able to continue home without further trouble.

Altogether, the trip was interesting enough for the few who took part but there was not the comradeship apparently experienced by the much larger contingent on the 1978 excursion.

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## CONTENTS

Minutes of Council Meeting-9.2.79.....	9
Minutes of General Meeting-16.2.79.....	9
Minutes of Council Meeting-23.3.79.....	11
Butterflies of some Gippsland rainforests.S.McEvey...	12
A Queensland trip for Coleoptera-J & G Burns.....	14
On the Grapevine.....	15
Poor autumn collecting.....	15
A search for <u>Ogyris</u> in Western Queensland.J.C.Le S.	16
Report on weekend excursion to Licola.....	20

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S.McEvey,R.Manskie,G.Rogge and D.Stewart.

## DIARY OF COMING EVENTS.

Friday 20 April-Address on aquatic insects by Dr. Mike Malipatil.

General Meeting.

Friday 18 May-Council Meeting.

Friday 22 June-Annual General Meeting. Presidential Address.

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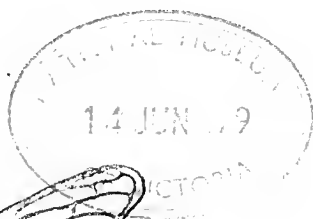
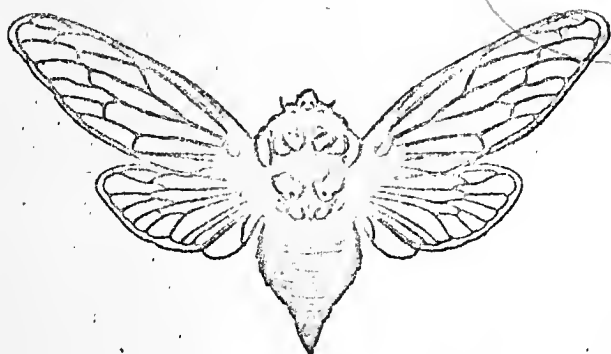
"The habits of insects are very mines of interesting knowledge, and it is impossible carefully to watch the proceedings of any insect,however insignificant,without feeling that no writer of fiction ever invented a drama of such absorbing interest as is acted daily before our eyes though to indifferent spectators."

"Insects at Home" by Rev.J.C.Wood.

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# THE ENTOMOLOGICAL SOCIETY OF VICTORIA.

## MEMBERSHIP

Any person with an interest in Entomology shall be eligible for Ordinary Membership. Members of the Society include professionals, amateur and student entomologists, all of whom receive the Society's Journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and study groups, of libraries and of University and Departmental staff.

## OBJECTIVES

The aims of the Society are:

- (a) to stimulate the scientific study and discussion of all aspects of Entomology,
- (b) to gather, disseminate and record knowledge of all Australian insect species,
- (c) to compile a comprehensive list of all identifiable Victorian insect species, and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in Entomology.

## MEETINGS

The Society's meetings are held at Clunies-Koss House, National Service Centre, 191 Royal Parade, Parkville, Victoria, at 8 P.M. on the second last Friday of even months, with the possible exception of the December meeting which may be held earlier.

Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with like interests. Forums are also conducted with short addresses by members on their particular interest so that others can participate in the discussion.

## ANNUAL SUBSCRIPTIONS

Ordinary Member	10.00 (Aust.)	Approx 11.80 (U.S.)
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## CONTRIBUTIONS TO THE "VICTORIAN ENTOMOLOGIST"

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of Entomology for publication within the Journal. Contributions are not restricted to Members, but should be responsible and original. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed, it would be of great assistance if they were typed on A4 (International quarto) paper, single spaced with double spacing between paragraphs, a margin on the left of 1 cm and on the right 5 mm.

June 1979

Victorian Entomologist

Minutes of the General Meeting held at Clunies-Ross House on  
Friday 20 th. April 1979.

Dr. Tim New chaired the meeting which opened at 8.05 P.M.

Attendance-Mesdames Holmes, Burns, Pilskałns, Stewart and Le Souef, Messrs. Condron, Crosby, Carwardine, Watkinson, Calder, Vagi, Dr. Malipatil, Msrs. Holmes, Hutchinson, Brooks, Burns, (Gordon and Gary) Kgur, O'Neil, Hallgarten, McEvey, Dunn, Le Souef, D. Stewart; Msrs. K. Dunn, A. Pilskałns.

Apologies were received Fred Hallgarten, Ray and Nola Manskie and Nige quick.

Minutes of the previous General Meeting were taken as read on the motion of Peter Kelly and seconded by David Crosby.

Correspondence was deferred until the next meeting.

Treasurers Report-Our Treasurer reported that there were 31 financial members with a General Account credit of \$687.68 and \$242.26 in the Publications Account.

Editors Report-There is sufficient material in hand for the next two journals. The cost of producing the journal is within the allocated budget.

Excursions. Ideas are required for early Spring excursions within a radius of 140 km from Melbourne. (Brisbane Ranges has been suggested) Peter Carwardine has requested that any member having suggestions for suitable locations to please contact him.

Exhibits- Shane McEvoy: Some butterflies collected during the summer of 1977-78 from various habitats in Victoria.

Of interest are the mounted head-caps of Hesperillid pupae and larvae. Also of interest are Jalmenus icilius from Laharum, Grampians; and Anisynta spp. from West Gippsland.

David Crosby: Applus paulina, Migrant, Mt. Piper. Eurema smile Theclines sp., Mt. Piper. New record-P. myrmecophila, Mt. Piper. H. meron salazar, West Aust. 2 miles, 1 female. New record, H. ignita, 1 female, Big Desert. Moths that fly like Lycædids, 2 males, name? Interesting-P. curren, ex. Gooding, named but not finally described by Couchman as "Kurnea" orange label. Ogyris orotes apiculata, West Aust. 1 male, 1 female. Two aberrations; light H. meron, 1 male, dark, O. lathoniella.

Peter Carwardine-Anthela canna, larva with parasitic wasp cocoons, eggs from parents bred in captivity. Larvae a few days old, 3rd generation in captivity; will pupate next January; feeding on acacia.

A. Pilskałns: A selection of insects recently collected.

Laurie Dunn showed a film of the Licola excursion.

Dr. Tim New introduced our member, Dr. M. Malipatil, speaker for the evening on the subject of "Aquatic Insects".

Dr. Malipatil gave a very informative address on some aspects of his work with the survey team at the National Museum. He illustrated his talk with charts, slides and a large display of live and preserved specimens.

Andrew Calder, on behalf of the Society, thanked Dr. Malipatil for his lecture.

The meeting closed at 10.12 P.M.

The next meeting is the Annual General Meeting on June 22nd.



June 1979

Victorian Entomologist

Minutes of Council Meeting held at Clunies Ross House on  
Friday 18th, May 1979.

President Dr. Tim New chaired the meeting which opened at 2.5 P.M.

Apologies were received from Nola Manskie, Bob Condron, David Stewart and Otto Rogge.

Minutes of the previous Council Meeting held on 23rd. March were passed on the motion of David Crosby and seconded by Andrew Calder.

Correspondence was received from: Ent. Soc. Aust. (NSW), 2 N/L., Aust. Cons. Foundn., Ent. Soc. Q'land (journal), CSIRO (Common names revision), Karger, Libri., DSIR, N.Z. requesting exchange of journals.

Treasurers Report was held over in the absence of the Treasurer.

Editors Report. The Editor reported that all was going well, with sufficient material for the next two journals.

Excursions-Peter Carwardine is going to Phillip Island to check on over-wintering wanderers and hopes to be accompanied by other members. Details to be discussed at the next meeting.  
October 10th. Buxton; Ray Manskie is to lead and organise a trip on this date.

General There was discussion on the format of the Annual General Meeting. Only financial members will be eligible to vote. Nomination forms for executive positions will be available.

It was decided that an approach be made National Museum about the possibility of the insect collections being made available to members out of normal hours.

As this was his final night as Chairman of the Council, Tim New thanked members for their support during his term of office.

"Zoo" Le Souef expressed the thanks of the Council for the enthusiasm and leadership shown by Tim over the past year.

The meeting closed at 9.20 P.M.

The next Council Meeting will be held on 20 July, 1979.

## AQUATIC INSECTS

By M. Malipatil\*

Interest in aquatic ecosystems, of which insects constitute an important part, has grown with the increased concern for environmental quality, and the ever increasing sophistication of anglers. Aquatic insects are also of concern to those involved in outdoor recreation activities, because certain groups (e.g. mosquitoes, blackflies, biting midges, horseflies) are frequently pests of man and animals in water based environments.

Of the 1.5 million or so described species of insects, only about 3% species are aquatic or have aquatic larval stages.

For their life in aquatic environments, the insects have undergone various morphological, physiological and behavioural adaptations. Some examples of morphological adaptations are the streamline form, as seen in certain mayfly nymphs of swift flowing streams, and the flattened body with suction discs seen in psephenid (water pennies) and blepharocerid fly larvae that cling to surfaces in rapids. Other common adaptations, especially among adult aquatics are the reduction in size of antennae which are concealed to reduce water resistance, development of powerful legs with swimming hairs and appendages, and presence of hydrofuge hairs or waxy surfaces to prevent wetting. However three most important aspects of the adaptations are the regulation of osmotic pressure of body fluids; aquatic respiration e.g. cuticular respiration; blood and tracheal gills; respiration by means of an air bubble from which oxygen diffuses into the insect's spiracles and into which oxygen diffuses from the surrounding water; contact with atmospheric air by breaking the surface with hydrofuge hairs or surfaces or breathing tubes, and plastron respiration; and overcoming the water surface film barrier.

Aquatic habitat may be either marine or freshwater.

## MARINE HABITAT

Although insects are known to exhibit morphological variations and ecological adaptations unexcelled by any other group of animals, they have generally failed to establish themselves in the seas and oceans, which of course form the largest aquatic habitat in the world. It is not yet clear why they are so rare in marine habitats. Several factors and combinations of biological, physical and chemical factors have been suggested by various workers. The most plausible explanation is that practically all insects are dependent at some point in their life cycle on surface air, and most are terrestrial or aerial in the adult stage. This effectively limits them to shallow waters not too distant from shore and accounts for their absence from the open ocean and their scarcity in the deeper parts of large freshwater lakes. Salinity is not the important factor, because few of the insects inhabit inland lakes with salts more concentrated than in the ocean. Only a fraction (perhaps several hundred) of the aquatic insect species occur in marine habitats. Nevertheless certain marine insects are of considerable economic or medical importance. Salt-marsh mosquitoes, biting midges and tabanid flies occur in sea coast coastal marshes and estuaries. Some of these not only bite man but may also carry human diseases. Many beaches are at times rendered unsuitable for recreation because of an abundance of these biting insects. Insects

\* National Museum of Victoria, 71 Victoria Crescent, Abbotsford, Victoria, 3067.

which are only found in the open sea, thousands of kilometres from land, are marine striders (Gerridae: *Halobates*; Veliidae: *Halovelia*), but these are only surface dwellers rather than true aquatics.

### FRESHWATER HABITAT

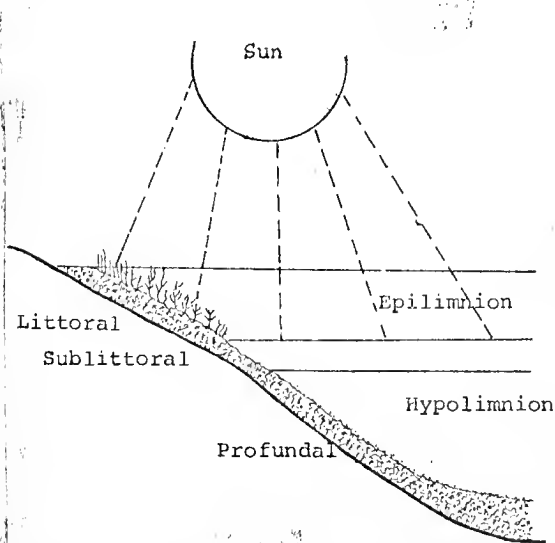
Insects are generally the most conspicuous form of life in freshwater habitats. No other group of animals shows as much diversity in structure and habits as insects. Aquatic insects fall into a pattern, each major group (order, family or genus) occupying a particular habitat with species represented on each of the continents. Thus, for example, a stream in Victoria may resemble a stream in California, each having its own representatives from among the mayflies, stoneflies, caddisflies, and so on.

At present, ten orders of insects have truly aquatic forms, and several others may be described as semi-aquatic, at least in part. All these except true bugs and some beetles live on land or in the air as adults and in the water only in their immature stages. In contrast to this, most water bugs and some beetles are aquatic throughout their lives but are directly dependent on surface air for respiration as adults. Thus it can be said that despite their great numbers and remarkable diversity, insects are only secondarily and incompletely adapted to aquatic life.

The freshwater may be either standing, as in lakes, ponds, etc. or running, as in rivers, creeks, etc.

### STANDING WATER (LENTIC)

Many zones are recognized in standing waters. There are 2 main types: those associated with the bottom (benthic), and those associated with open-water (see Figure below). Between the two open-water zones a compensation depth marks a place where photosynthetic processes are matched by respiratory events.



#### Benthic Zones

Littoral and Sublittoral: caddisfly larvae, true bugs, beetles and host of other insects.

Profundal: some chironomid larvae

#### Open-water zones

Epilimnion: gyrrinid beetles, water striders (gerrids), etc.

Hypolimnion: chaoborid mosquito larvae.

There is no sharp distinction between lakes and ponds. Generally the ponds are small bodies of water of little depth. They might be defined as entirely within the photosynthetic zone and within the zone of rooted aquatic plants. Although many ponds are perennial, the pond organisms are generally adapted to life under the harsh conditions of temporary ponds. They have ready means of dispersal, short life cycles, and resistance to extremes of temperature, desiccation, etc. Several groups of insects, such as dragonflies and damselfly nymphs, mayfly nymphs, bugs and beetles and larvae of several groups of Diptera are ideally suited to this type of existence.

#### RUNNING WATER (LOTIC)

The linear morphology of running waters is uniquely different from standing waters. Also, even the largest rivers are usually shallow compared with lakes. As a result, a distinct longitudinal zonation of the fauna is characteristic of running water ecosystems compared with depth distribution seen in standing waters. An ideal longitudinal profile of a running water would show two main regions grading into each other. In the upper reaches erosional effects are predominant, and near sea levels are those of deposition. As a result the stream bed is made up of coarser particles in the upper reaches than in lower reaches where it is predominantly silty. Major criteria that regulate the animal life in running waters are the current speed, type of bed, dissolved organic matter, rooted aquatic plants, dissolved oxygen and temperature.

Some features of running waters may be explained by discussing the results of the Thomson and Macalister rivers' (Gippsland) invertebrate survey carried out by the National Museum. In all about 400 species of insects were collected from these streams. Five major habitats were recognized in the study streams, with the following characteristics and inhabiting insect groups.

Riffle-rapid-runs: Mainly shallow (to 30 cm deep), current from moderate to fast (70-280 cm/sec), bed predominantly clean boulders, cobbles, pebbles, and patches of sand and gravel. Patches of leaves, twigs, etc. under stones.

This habitat supported by far the greatest number (about 40% of the total). The major groups were dragonflies, stoneflies, rifflebeetles (elmids), water pennies, ptilodactylid and scirtid beetles, and among flies mainly blepharocerids, simuliids, rhagionids and empidids. Several elmid species were restricted to large logs often found in this habitat.

Pools: Mainly from 30-100 cm deep, current from slow to moderate (14-140 cm/sec), bed mainly fine gravel to silty mud. Much fine organic material, and patches of leaves, twigs usually mixed with silt.

Only 5 species (elmids and pyralid larvae) were restricted to this habitat.

Banks: Mainly up to 50 cm deep, current slow to moderate, bed mainly gravelly banks, overgrown with terrestrial, semi-aquatic and aquatic plant. Bank vegetation providing main organic food source. Patches of detritus.

Twenty-nine species - some beetles (dytiscids, hydrophilids, gyrinids, etc.) and bugs (gerriids, veliids, corixids, notonectids, etc.), were found in this habitat.

Backwaters: Mainly shallow, current still to slow (less than 14 cm/sec), bed from pebbles and cobbles to mud. Deposits of silt and fine organic material always present. Considerable accumulation of detritus.

About 35% of the species collected in the survey area occurred in this habitat. These were most mayflies, some stoneflies, bugs, dytiscids and hydrophilids.

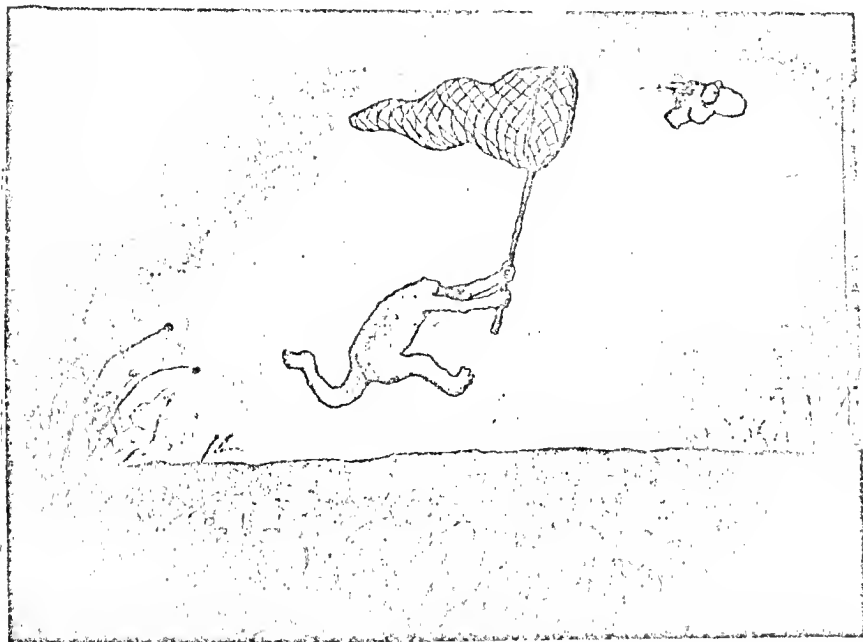
Swamps and lagoons: Mainly upto 50 cm deep, no current, dissolved and suspended organic matter high, bed deep mud, with deep layers of organic sludge, and dense and diverse flora of aquatic plants. Main food source is organic ooze and detritus from aquatic plants.

Sixtynine species of insects, characteristic of standing water habitat, occurred here. These were damselflies, variety of bugs (notonectids, corixids hydrometrids, belastomatids, mesoveliids, etc.), beetles (dytiscids, hydrophilids, hydrochids, etc.).

#### COLLECTING METHODS

A large number of collecting methods have been developed for lentic and lotic insects. In the survey, a combination of several of these methods were employed to obtain a fairly representative collection from different stream habitats and microhabitats.

Dip netting along edges of water, among aquatic vegetation, and in pooly sections of streams. Nets of different mesh sizes were used for collecting different sized insects. Kicking up the stream bed in a standardized way in front of the mouth of a dip net, to catch the insects inhabiting faster waters. Brushing rock surface and other substrata such as algae, detritus and moss with a firm 5 cm paint brush into a dip net. Hand picking insects from logs, algae, moss and other microhabitats not easily collected by other methods. Terrestrial and aerial stages of insects were taken by conventional terrestrial collecting methods, and at light traps.



Trip to Monterey PeninsulaBy Julie and Ross Field.

On December 23rd.1978,Ross,Bolinda,Michelle(3 weeks old), Gary ( Ross's brother ) and I travelled 120 miles south from San Francisco,all the way on freeways,to the Monterey Peninsula. This peninsula is a popular holiday area. It is famed for its pine trees and beautiful scenery,especially its beaches,but our main aim was to see the small overwintering site of the Monarch butterfly.

Every year from September to March the butterflies migrate to this grove of pine trees despite the fact that they have never been there before. Many have travelled at least 1000 miles down the west coast of North America and in the Monterey Bay area are brought ashore by the prevailing winds.

After making a few enquiries,we were able to find the few pine trees the Monarchs select to overwinter at Pacific Grove. There are signs requesting silence and there is a fine of \$500 for anyone molesting a Monarch butterfly. We arrived about 2 P.M. and so had missed the best time of the day for viewing and photographing them,but it was still a truly unbelievable sight. From about 15 feet above the ground the tree limbs and trunks are covered with butterflies. There were so many that it was almost impossible to see the foliage on many of the branches. When the sun shone directly on to them,a number started to fly despite the fact that the shade temperature was about 11deg.C. In honour of the butterflies,a festival is held each year at Pacific Grove.

We hope to re-visit this wonderful spot before we leave in 1981.

Book Review

Absolum's Guide to Safe Outback Travel. Rigby. \$3.95.

Because of our travels in the outback,our local Postmaster,Alan Watson,who organises the dispatch of this journal,gave me this little volume to look through recently. It has nothing to do with entomology, but I feel that it could be of great interest to those who collect off the beaten track.

The information contained in the 91 pages sets out to cover as many as possible of the hazards one is likely to meet in outback travel and a means of overcoming them. There are comments on how to get out of mud,sand and bulldust bogs,flat battery,tyres,mending petrol leaks and many others. My only criticism is that it lacks an index.

J.C.Le Souef.

A Collecting Trip to North Queensland.by K.L. Dunn.

Although I had been previously informed that it would not be a good time for collecting in northern Queensland, my recent trip to the Cairns/Townsville region in late October, 1978, proved to be very successful.

I began my collecting in the rainforest fringed park opposite the Cairns Botanic Gardens. This area appeared to be a good spot, especially for Mycalesis of which all the three species were taken. The grey females of Hypolycaena phorbas phorbas were occasionally seen as they flew across the undergrowth. Catopsilia pomona pomona appeared fairly common but, strangely, no other Pieridae were taken in this area. Danis cyanea arinia was a very common species, but preferred to fly in filtered sunlight in the rainforest and less frequently around the edges. This species flew in all weather from brilliant sunshine to drizzle, although they did seek shelter when the rain became heavy.

Around a group of trees near the centre of the park, I noticed several inconspicuous little Lycenids. At a distance of approximately 30 metres, the butterflies looked distinctly white, but closeup appeared grey. After repeated swipes of the net, I managed to catch one and recognised it as Marathura wildei wildei.

Papilio ulysseus joesa was very common in the Botanic Gardens and even the most casual observer couldn't help but notice their electrifying flashes of metallic blue as they flapped high around the tree tops and fed (keeping their wings in constant motion) at the flowering bushes near the entrance.

North of Cairns at Port Douglas, Cressida cressida cressida was flying with an occasional Acraea andromacha andromacha. A couple of Vanessa cardui were feeding at flowers but I didn't manage to net any. I also saw a very fresh specimen of Papilio fuscus capaneus. This was the only specimen I saw on the whole trip.

The rainforested Crystal Cascades appeared to be an excellent area for viewing and collecting butterflies and many species from most families were on the wing.

Male Papilio aegaeus aegaeus tended to fly along the course of the river in groups of two. As I watched this species fly by a few times, I noticed that the second butterfly was not aegaeus but the less common P. ambrae. I also noticed that the ambrae never attempted to overtake or circle the male aegaeus but continued to fly at approximately the same distance behind (1-1.5 m) and follow the same flight path as the male aegaeus in front.

Around a flowering bush I viewed a couple of greyish white and black butterflies which looked similar to Delias nigrina females. These specimens turned out to be Mynes geoffroyi guerini. Occasional Delias mysis mysis were also seen feeding at this flowering plant.

Vindula arsinoe ada males were fairly common but were difficult to net until they settled, usually on a leaf with wings outspread. A couple of females of this species were seen but kept well up out of reach of my net.

At the 'Mountain Groves', Kuranda I found Danis hymetus taletum and numerous Delias feeding at lantana on the outskirts of rainforest. Species recognised included : D. argenthona argenthona, D. nigrina, D. ennia nigridius and D. mysis mysis. Of the latter I obtained a good series. For my first time ever I was able to view both males and females of Ornithoptera priamus euphorion sailing around the tree tops and feeding at the lantana with the Delias.

Mission Beach proved a good area for the Nymphalids : Cupha prosopoe prosopoe, Doleschallia bisaltide and Pantoporia consimilis consimilis. All these three species preferred to fly well into the undergrowth which made capturing difficult. Alongside a road through rainforest, I saw a near perfect specimen of Yoma sabina parva, an uncommon species which I unfortunately did not capture. According to Common and Waterhouse (1972), this species has not been previously recorded south of Cairns. This new location extends the known range of this species 110 km further south.

At Castle Hill, Townsville, Polyura pyrrhus sempronius was flying commonly on the summit. Fortunately, they settled frequently which made collecting easier as they were very difficult to net in flight. Hypolimnas misippus males were also very common but only a couple of females were taken.

My last place to visit was Magnetic Island, where, outside the National Park area of the island, I found members of the Subfamily Danaeinae flying commonly in the grassy regions. Narathura micale amphis and N. araxes eupolis were common on the island. In flight N. araxes appeared grey whereas N. micale looked distinctly darker. Unlike araxes, micale often descended to land on foliage that was within reach of the net.

The following list includes the species of butterflies that I collected and sighted on the trip.  
N.B. Only positively identified sightings were listed.

#### Family Papilionidae.

Graphium macleayanus wilsoni Couchman, 1965,  
Mt. Spec N.P. Sighted.

G. sarpedon choredon (C. & R. Feld.) 1864.  
Lit. Crystal Ck. N.P. Sighted, Mt. Spec, Sighted

G. eurypylus lycaon (C. & R. Felder) 1865.  
Cairns, Port Douglas - sighted.

G. agamemnon ligatum Roths. 1895.  
Lit. Crystal Ck. N.P. Sighted.

P. anactus W.S. Macleay 1826  
Castle Hill, Townsville, Cairns (collected but not retained)

Papilio aegaeus Don., 1805.  
Crystal Cascades, Mission Beach, Kuranda, Magnetic Island.

To be continued-



A Modern Approach to Pest Control.by T.R.New

One facet of biological control work which is currently arousing considerable attention is the possibility of 'manipulating' populations of naturally occurring predators, so that they may be present on a crop, in a garden, etc., at a time shortly before the pests (such as aphids or scales) are present: the latter is often reasonably predictable in relation to plant growth stage and/or climatic factors. In California, considerable work has been done on ways to provide 'artificial honeydew' in the field to attract (in particular) some green lacewings into the area at times before they would be attracted to naturally produced honeydew. Constituents of such artificial honeydews, which are applied as sprays onto the plants are generally: (a) a yeast hydrolysate product, (b) carbohydrate - such as sugar and (c), water. Such mixtures can act both as an attractant, and as a food source for 'arriving' predators. (Hagen et al. 1970). Similar yeast products have been evaluated as 'baits' for fruitflies.

I have recently done some preliminary laboratory work on the use of several yeast hydrolysates (of which Vegemite is the best known) as attractants for some Australian green lacewings. It seems, although field trials have not yet been done, that such products are attractive to several common lacewing species, whose larvae are active predators on many small insects, and that they may prove to have a place in both domestic (garden) and field crop contexts as an adjunct to more conventional pest control methods.

HAGEN, K.S., SAWALL, E.F. & R.L. TASSAN 1970. The use of food sprays to increase effectiveness of entomophagous insects.  
Proc. Tall Timbers Conf. Ecol. Animal Control by Habitat Management. pp 59-81.

Next August's Journal.

Among the items to appear will be a resume of Dr. Tim New's Presidential Address on the subject of "Chilian National Parks", Coleoptera of the Little Desert by J.W. Wainor together with many other matters of interest.

ON THE GRAPEVINE.

Overshadowing all other news since the last journal has been the trauma of our Secretary, Nola Manskic's very serious illness. There have been many enquiries from members to both Ray at home and the hospital during her illness. At the suggestion of Peter Carwardine flowers were sent from the Society to her when she was in hospital. She is now making good progress towards recovery and it should not be very long before she is able to join us in our meetings again.

On a brighter note, word from Dr. Norman B. Tindale tells that he is hoping to be in Australia later in the year to meet old friends and continue his work on Geitoneura and Orioxenica.

Greg Daniels who paid a brief visit to Victoria during the summer and who has been working at the Australian Museum has been appointed to a position in the Entomology Department of the Queensland University.

Recently Mary and I paid a visit to Llew Gooding at Warragul. I found him as full of information as usual although a little more frayed with the passing of the years. One of the objects of the visit was to obtain some information for some notes I hope to write for a later journal. The second batch of 330 storeboxes was taken to Canberra recently and the final lot of 350 will also have left by now. I think some of our members have already looked them over to pick several to house their own collections.

In a recent letter, Ross Field told of his current work on scanning electron microscopy using Ogyris pupal cases as his subjects. I will be keenly interested to learn whether he can detect variations at the subspecific level as well as the specific.

Andrew Atkins still busy in London, apart from his painting, is doing some experimental skipper photography.

David Stewart took a relaxing ten day trip to Sydney recently. He reported that there were few insects on the wing and was only successful in collecting one dead bird for his mite study.

Gordon and Joy Burns have just returned from a few days in the Little Desert just for a break and a yarn with Keith and Mary Hately. They found the country in great heart after the rains with many flowering shrubs and trees and abundant new growth everywhere. The ever busy Keith has found time to do some further work on his collection.

President Tim New is in the hectic race against time in preparation for his overseas trip, final tasks almost following him into the plane.

Ever on the lookout for Paropsis material, Peter Kelly was highly elated when his daughter, Margaret, brought him back a new species from a trip to the Otways recently.

As is usual at this time of the year, the other two "locals", Dave Holmes and David Stewart and I had a session on Hepialids. Unfortunately, an unexpected jet stream brought the rains earlier than expected and the emergence was a bit protracted. Dave Holmes with his light at the edge of natural forest, noted quite a number as well as a variety of other moths, at Dromana.

Index to Volume 8 of the Victorian Entomologist

Anon. Report on the Weekend Excursion to Licola...	(4):35
Atkins, A. Another distribution record for <u>Pseudodipsas brisbanensis</u> <u>brisbanensis</u> in Victoria.....	(1):7
A collecting trip to Western Australia ..	(3):25-29
Burns, Gordon, Don't neglect the Fluorescent Light..	(3):30
Carwardine, P. Report on Excursion to Phillip Island.	(5):47
Crosby, D.F., Glow-worms.....	(6):56-59
Dunn, Kelvyn, Collecting Butterflies at Jenolan Caves.	(5):48
Field, R.P., Rediscovery of <u>Pseudodipsas brisbanensis</u> in Victoria.....	(1):5-7
Fisher, R.H., New Guinea Butterflies, Part 3,.....	(2):12-14
"      "      "      "      "      Part 4.....	(4):36-38
Holmes, D.R., Obituary, J.W. (Bill) Burt.....	(1):4
Hutchinson, J.F., Butterflies of the Daly River Area.. Northern Territory.....	(2):15-19
Le Souef, J.C., Book Review on Bibliography of Australian Butterflies, M.S. Moulds.....	(3):24
"      The Butterflies of Tasmania, L.E. & R. Couehman.	(5):50
Membership List.....	(6):60-63
New, T.R. 'Living in Leaves', Presidential Address.....	(4):39-41
"      "      Recent Lepidoptera Publications.....	(5):51-52
Obituary, J.W. Burt, (D.R. Holmes).....	(1):4
Presidential Address.....	(5):51-52
Quick, W.N.B., Entres Data Bank-Identifications.....	(2):14

## CONTENTS

Minutes of General Meeting-20 April, 1979.....	21
Minutes of Council Meeting-18 May, 1979.....	22
"Aquatic Insects" - M.Malipatil.....	23-26
"Trip to Monterey Peninsula"-Julio and Ross Field.....	27
Book Review"Absolum's Guide to Safe Outback Travel".....	27
"A collecting trip to North Queensland"-K.L.Dunn.....	28-29
"A Modern Approach to Pest Control"-T.R.New.....	30
On the Grapevine.....	31
Index to Volume 8 of Victorian Entomologist.....	32

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Mrs.Joy Burns, Mrs.Mary Le Souef, Messrs.A.Calder, P.Carwardine,  
S.McEvey, R.Manskic, O.Rogge and D.Stewart.

-ooOoo-

## DIARY OF COMING EVENTS

Friday 22 June-Annual General Meeting. Presidential Address.

Friday 24 August-"On Tour", Gordon & Joy Burns with movies.

Friday 19 October-"Dragonflies of the Top End" by J.Hutchinson.

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"The naturalist and the artist are the two people who get the very best and highest emotions out of life, for they study nature, and thus gain the power of reading the poetry of the universe, of seeing the beauty of form and of hearing the music of the world."

W.W.Froggatt.

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VOL. 9 NO 4.

AUGUST 1979

# VICTORIAN ENTOMOLOGIST



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Journal of  
The ENTOMOLOGICAL  
SOCIETY of VICTORIA

# THE ENTOMOLOGICAL SOCIETY OF VICTORIA.

## MEMBERSHIP

Any person with an interest in Entomology shall be eligible for ordinary Membership. Members of the Society include professionals, amateur and student entomologists, all of whom receive the Society's Journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and study groups, of libraries and of University and Departmental staff.

## OBJECTIVES

The aims of the Society are:

- (a) to stimulate the scientific study and discussion of all aspects of Entomology,
- (b) to gather, disseminate and record knowledge of all Australian insect species,
- (c) to compile a comprehensive list of all identifiable Victorian insect species, and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in Entomology.

## MEETINGS

The Society's meetings are held at Clunies-Ross House, National Service Centre, 191 Royal Parade, Parkville, Victoria, at 8 P.M. on the second last Friday of even months, with the possible exception of the December meeting which may be held earlier.

Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with like interests. Forums are also conducted with short addresses by members on their particular interest so that others can participate in the discussion.

## ANNUAL SUBSCRIPTIONS

Ordinary Member	10.00 (Aust.)	Approx 11.50 (U.S.)
Student, Associate Member	5.00 (Aust)	" 5.75 "
Journal posted surface mail		

No additional fee is payable. Associate Members, resident at the same address as, and being immediate relatives of an Ordinary Member do not automatically receive a copy of the Society's publications, but in all other respects rank as Ordinary Members.

## CONTRIBUTIONS TO THE "VICTORIAN ENTOMOLOGIST"

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of entomology for publication within the Journal. Contributions are not restricted to members, but should be responsible and original. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed, it would be of great assistance if they were typed on A4 (International quarto) paper, single spaced with double spacing between paragraphs, a margin on the left of 1 cm and on the right 5 mm.

Minutes of Annual General Meeting held at Clunies-Ross House  
on Friday 22nd June 1979.

Members and visitors were welcomed to the meeting which was chaired by President, Dr. Tim New.

The 23 members and visitors present included :

Mesdames. Holmes, Burns, Stewart, Le Souëf, Drs. New, Malipatil, Messrs. Manskie, Le Souëf, Holmes, J. & F. Hallgarten, Rogge, Calder, Burns, Crosby, Stewart, Dunn, Carwardine, Watkinson, Vagi & Mstr. K. Dunn.

Apologies were received from Bob Condron, Nigel Quick, Miss Elizabeth Mathieson and Ray Besserden.

Minutes of the 1978 Annual General Meeting were accepted on the motion of Ray Manskie and seconded by David Crosby.

Correspondence Inward- Journals and news letters from Ent. Soc. Queensland, Ent. Soc. Aust. (NSW), Aust. Ent. Mag., current Book Distributors.

Outward- D.S.I.R., New Zealand.

Treasurers Report- In his absence, Bob Condron had forwarded the information that there was a Credit Balance of \$762.38 with \$242.26 in the Publication Account. So far only 42 members are financial.

Excursions. Peter Carwardine thanked members who had supported excursions in the past year. He is hoping to make a private trip to Phillip Island in July and would welcome company. Arrangements for an excursion to Buxton in early October will be finalised at the July Council Meeting and announced in the August Journal. This outing will be led by Ray Manskie.

Books- Peter Carwardine brought to the notice of members, two books of interest- "Living Bush", now available at £3 and an index produced by the Field Naturalists Club of Vic. from 1884 to 1978. Its price to its members is \$10.

Editor "Zoo" Le Souëf reported that there was sufficient material for the next journals but that further notes would be more than welcome.

General Business- David Crosby displayed Grid Maps and explained their function to interested members.

Before vacating the Chair, President Tim summarised some of the Years activities. It was necessary to increase subscriptions because of increased costs. He commented on the members involvement in excursions and the Club's commitment to the grid-mapping scheme, Entrecs. Tim also expressed appreciation to members' support and that of Council during his term of office with

August 1979

Victorian Entomologist

special thanks to Nola Manskie for her efficiency as Secretary, "Zoo" for producing the new journal and Bob for so capably handling the finances. He also said that all members were relieved to know that Nola Manskie is due out of hospital after her serious illness and a stay there of 10 weeks.

.....

### Election of Office Bearers for the Year 1979/1980

The elections were conducted by Laurie Dunn

#### President

Nomination-	David Stewart.	
Proposer-	"Z".Le Souëf.	
Seconder-	D.Holmes.	Elected.

#### Vice-Presidents

Nomination-	Peter Carwardine.	
Proposer-	Ray Manskie.	
Seconder-	Otto Rogge.	Elected.

Nomination-	Andrew Calder.	
Proposer-	Ray Manskie.	
Seconder-	Otto Rogge.	Elected.

#### Secretary

Nomination-	Nola Manskie.	
Proposer-	Tim New.	
Seconder-	Andrew Calder.	Elected.

#### Treasurer

Nomination-	Bob Condron.	
Proposer-	Peter Carwardine.	
Seconder-	Joy Burns.	Elected.

#### Editor

Nomination-	"Zoo" Le Souëf.	
Proposer-	Tim New.	
Seconder-	David Holmes.	Elected.

#### Councillors

(1)	Nomination-	M.Malipatil.	
	Proposer-	Tim New.	
	Seconder-	"Z".Le Souëf.	Elected.

(2)	Nomination-	Gordon Burns.	
	Proposer-	Andrew Calder.	
	Seconder-	David Stewart.	Elected

(3)	Nomination-	Joy Burns.	
	Proposer-	Andrew Calder	
	Seconder-	David Stewart.	Elected.



August 1979

Victorian Entomologist

- (4) Nomination- Ray Manskie.  
 Proposer- David Stewart.  
 Seconder- "Z".Le Souëf. Elected.
- (5) Nomination- David Crosby.  
 Proposer- Tim New.  
 Seconder- "Z".Le Souëf. Elected.
- (6) Nomination- Shane McEvey.  
 Proposer- M.Le Souëf.  
 Seconder- Tim New. Elected.
- (7) Nomination- Mary Le Souëf.  
 Proposer- Tim New.  
 Seconder- David Stewart. Elected.

.....

The incoming President, David Stewart then took the Chair inviting Dr. Tim New to give his Presidential Address.

Tim told of his entomological and general experiences while exploring Chilean National Parks with his wife, Nesta in 1978, fascinating indeed.

In closing the meeting, David Stewart congratulated Tim on a very informative and entertaining address. He also expressed the appreciation of members for his leadership and enthusiasm for the welfare of the Society during his term as President. This expression was carried with acclamation with all wishing Tim good collecting and success during his sojourn overseas.

The meeting closed at 10.25.P.M.

### Activities of the 1978/1979 Presidential Year.

#### General Meetings.

21th.July- Presidential Address- Dr.T.R.New, "Larval Feeding in Lepidoptera".

18th.Aug.- N.Quick-address on Entrees data cards followed by a general discussion on grid mapping.

Exhibits-Dr.T.New with a pair of ground dwelling bush crickets with particularly large and powerful jaws from Cloud's Creek north of Armidale.

Farewell to Ross and Julie Field with their leaving for his three years study at the Berkeley University in California.

August 1978

Victorian Entomologist

## Activities for 1978/1979 : Continued.

22nd. September - Mr. Laurie Dunn showed two excellent films, one of the Wanderer Butterfly and the other taken on a recent collecting trip to Jenolan Caves with Kelvyn.

J.C.Le Souëf - slides taken on a recent trip to Mt. Isa.

Dr.T.New- Slides of a fossil wasp in amber.

30th. October - Professor Max Whitten spoke of "The Use of Genetics in Insect Control".

J.C.Le Souëf exhibited an example of the size of the proposed journal with a new format so that members could comment on it before finalisation.

15 th. December - Mr. Paul Genery gave an address on "Live Organisms under the Microscope". This was followed by a film on the subject. The meeting closed with the usual conviviality associated with the Christmas season.

15th. February - Member's Forum.

David Stewart - Slides and a talk on mites and ticks.

Peter Kelly - spoke on Paropsis beetles.

Joy Burns - A selection from her slide library.

Andrew Calder spoke on the Elateridae (Click beetles).

20th April - M. Malipatil gave an illustrated address on "Aquatic Insects" and a display of live specimens.

Attendance at meetings varied from 22 to 29.

August 1979

Victorian Entomologist

Activities for the 1978/1979-continued:Council Meetings

There were five Council Meetings during the year when the various matters dealing with the welfare of the Society were discussed.

Entrees.

Work is progressing on this project with grid maps being prepared for a number of species of Victorian butterflies. David Crosby is helping out in this field during Nigel Quick's illness.

Excursions.

- July 16 - Phillip Island to check on the overwintering of a breeding colony of wanderers Danaus plexippus.
- Dec. 1 - Glenaladale in Gippsland. There was a large participation in the weekend excursion to the Billy Goat Bend National Park.
- Feb.23 Licola, also in Gippsland. This repeat visit to this area was not as successful as the first with very dry conditions and few members attending.

Editor's Report

With the increasing postage costs and the difficulties associated with the production of the Journal as explained in a "Presidential Comment" in Vol.9,1, by Dr. Tina New, it was decided by the Council that it be produced in a new form.

The first with the new format appeared with an eight page content and the second increased to twelve pages. Obviously, the size of the Journal depends on the availability of material. It would appear that, with the support of members, this can be continued with a balanced content in each issue.

Your Editor expresses his appreciation for the support he has received in the production of the Journal in its new form.

Membership.

The Society is still plagued with the never ending problem of trying to increase membership. There is a slight increase during the year with a total of 71 members. The great majority are amateurs with a handful of professionals and some keen youngsters among the associates.

Non-Treasurer's Report.

Statement of Receipts and Expenditure for the Year Ended 31st. December 1978.

Credit Balance brought forward.....488.95

Receipts

Bank Interest(General A/c)..... 17.73  
Subscriptions.....340.  
Ex.subs Journal Sales..... 75.18  
Donations..... 10.35  
Advertising Sales..... 42.  
Camp Deposit Refund.....100.  
Publications Fund inc 8.55 int.....242.26

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£1297.47

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Expenditure

Journal Production, Stencils, etc..... 95.27  
Postage..... 49.30  
Secretary's Expenses..... 22.47  
" Petty Cash..... 14.  
Treasurer's Expenses..... 2.56  
Hire of Projector & Cafe Bar..... 47.20  
Deposit of Camp Hire.....100.  
Affil.Fees Aust.Ent.Soc..... 30.  
Deposit & Fees,Camp Hire.....126.  
Credit Publications Fund.....242.26  
Credit Balance Cheque A/c.....568.41

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£1297.47

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Audited and found to be in accordance with the records submitted.

Kevin Ross.  
Chartered Accountant.  
Melbourne.

August 1979

Victorian Entomologist

Summary of Presidential Address to the Entomological Society  
of Victoria, June 1979.

Chilian National Parks.

T.R.New.

The ecological relationships between Australia and other southern continents have long been of considerable interest to biologists, but knowledge of the distribution and affinities of many of the groups of smaller insects in these areas is still sparse. As part of a long term research interest in the taxonomy and distribution of Psocoptera in South America, I passed some four months in 1976, together with my wife, collecting these insects in many parts of central and southern Chile. We were also able to cross the Andes into Argentina in several places, in order to compare the fauna on the western and eastern slopes of the mountains.

Our main need was to collect in areas of undisturbed natural vegetation and, as many such areas were in National Parks or other reserves, we were able to visit a number of these and to make casual observations on their management. Tonight I will make a few observations on some mainland parks.

Chile is largely isolated from the rest of South America, and has been termed a 'continental island'. Its fauna and flora are largely distinctive, as Chile is 'insulated' by desert to the north, by the Andes to the east, the Pacific to the west and Antarctica to the south. Chile extends from the tropics almost to the Antarctic, and thus includes a wide range of climatic regimes and vegetation types, many of which are represented in National Parks. The native trees of the southern forests include many Myrtaceae, some conifers and several species of Nothofagus, all of which are of interest for comparison with southern Australia. It is also of interest that several species of Australian Eucalyptus and Acacia have been introduced into Chile, and are now very widely distributed in the central valley of the country.

Chile has some 50 National Parks, which total more than 5½ million hectares, or some 7.3 % of the land surface. Most of the main terrestrial ecosystems are represented but many parks are inaccessible—21, for instance, are in the southern regions, and have no easy access—and relatively few are near centres of population. A number of Andean parks have their effective areas increased by directly adjoining Argentinian parks across the border.

Aims of the different parks include, for examples, some 67

all of :preservation of natural ecosystems,education,scientific investigations,recreation,tourism,preservation of cultural artifacts,and so on. But conflicting interests leave no room for complacency over long term prospects for some parks. As in Australia,a declared National Park is not automatically sacrosanct,and mining or forestry interests,among others,may cause revision of the status of such areas. Chilean parks are centrally administered by a Department of CONAF (Corporacion Nacional Forestal) in Santiago,and are thus directly under the umbrella of the timber interests. Permits are needed to collect insects in all parks,these have to be authorised in Santiago.

Because of their relative isolation,many of the parks are not yet subject to much public pressure-or,indeed,of concern-and fragile ecosystems are currently able to be conserved. The mainland parks discussed in this address are chosen to exemplify the difficulties attendant on harmonising diverse interests and priorities;

i. Fray Jorge National Park (about 30°S) is ecologically one of the most unusual areas of central Chile. On the southern fringe of the desert and about 300 km north of Santiago,this predominantly arid coastal park also includes humid forest rather similar to that typical of about 800 km to the south. This forest,maintained by coastal fog,forms the northernmost limit for many insect species characteristic of southern areas. The park is very remote,and was established largely to control the relict wet forest.

ii.La Campana,a recently established park,comprises a microcosm of the major Mediterranean communities of central Chile,and contains virtually all vegetation types of the region-including the most northerly *Nothofagus* in South America. It is remarkable as a park of some 15000 hectares only some 75 km from Santiago and Valparaiso. The area is of historical interest as it was visited by Charles Darwin in 1835. Currently there are mining and grazing interests within the nominal boundaries of the park,and 'honey-palms' (*Jubaea*) grow on the northern slopes. The park,part of the coastal mountain range,is to be developed primarily for ecological education.

iii.Cerro Nielol. The other park accessible to urban dwellers is rather different from La Campana. Cerro Nielol is a small hill(some 20 hectares) in the city of Temuco. It is one of the few surviving areas of *Nothofagus* in the central valley of Chile;the valley is mainly cleared and intensively cultivated. The park is planned for intensive recreational use,and includes a museum and restaurant.

iv.The various Andean parks (about 38-42°S) include some of the most spectacular scenery of the country,especially the volcanoes and lakes. Much of the area is undisturbed,except round lake margins and along the few roads between the lakes. Many of the more accessible parts of the region are,however,currenty being promoted as tourist resorts both for winter sports and summer fishing,and it seems likely that increasing tourist pressure will conflict with conservation interests in the area.

August 1979

# Victorian Entomologist

In addition to the above parks, I collected in adjacent areas of Agentinian Parks, and in a wide range of other Chilean habitats. Several thousand Psecoptera were collected, and the taxonomy of the collection has now been worked out in collaboration with Prof. Ian Thornton who visited Chile during part of the same period we were there.

The future of National Parks in Chile is difficult to predict. Currently it seems that many of the areas are 'safe' because of lack of major resource exploitation or of large scale tourist development. But there are moves towards the latter, and it is possible that increasing need for timber may also result in lower priority for purely ecological interests in some areas. There is urgent need for biological work to be undertaken in many of the parks. At present, detailed management plans have been published for several parks (including Fray Jorge), and some data on plant distribution and occurrence of larger vertebrates are available. However, virtually no information on invertebrate groups has been published, and very few biologists have even systematically collected insects in any National Park in Chile, or sought to compare the insect fauna of two or more parks. Many Chilean biologists are, however, concerned about the ecological future of their unique country, and it is a pleasure to acknowledge the advice and ready help of scientists in many Chilean institutions, and in CONAF, who together made our trip both scientifically valuable and extremely enjoyable.

## Minutes of Council Meeting held at Clunies-Ross House on Friday 28th July 1979.

President David Stewart chaired the meeting which was opened at 8.10. P.M.  
Apologies were received from Bob Cudron, David Crosby, Mary and "Zoo" Le Souef, Shane McEvey, Nola and Ray Manskie.

Minutes of the previous Council Meeting held on 14th May were passed on the motion of Peter Carwardine and seconded by Dr. M. Malipatil.

Correspondence was received from: H. Coulson, requesting information on advertisement rates in "Victorian Entomologist".

Treasurer's Report was held over in the absence of the Treasurer.

Editor's Report The Editor had advised that material is available for the next issue.

Excursions Ray Manskie is to lead the next excursion to Buxton on Sunday 21st October; details will be announced at the next General Meeting.

General Copies of the constitution are to be obtained, and one copy issued to all new members. Copies will be forwarded to current members on request. Passed on the motion of Mrs. Joy Burns seconded Peter Carwardine.

There was discussion on the following:-

1. Methods of advertising the Society with a view to increasing membership. Posters may be sent to Biology teachers at Colleges and secondary schools. Dr. M. Malipatil has undertaken to obtain the necessary information on this.
2. Entrees - a few minutes at each General Meeting is to be allocated to Entrees Logistics.
3. Peter Carwardine has suggested that any unusual entomological observations made during the month preceeding a meeting be made known and published in the Journal. The meeting closed at 9.30.  
The next Council Meeting will be held on Friday 21st September 1979.

COLEOPTERA OF THE LITTLE DESERT - PART 1

by

J.W. Wainer

The following is a list of specimens of beetles of three families collected by the author in the Little Desert:

## Alleculidae

<u>Anaxo cylindricus</u> Germ.	Under log
<u>Apellatus lateralis</u> Boh.	{To light at night { <u>Eucalyptus incrassata</u> bark
<u>Atoichus bicolor</u> Blkb.	{ <u>Calytrix tetragona</u> flower { <u>Spyridium suborchreatum</u> flower
<u>Homotrysis regularis</u> MacI.	<u>Acacia calamifolia</u> phyllode
<u>Metistete omophloides</u> Hope	<u>E. leucoxylon</u> bark

## Cerambycidae

## Cerambycinae

<u>Adrium artifex</u> Newm.	{To light at night { <u>E. leucoxylon</u> bark
<u>Coleocoptus senio</u> Newm.	<u>E. incrassata</u> bark
<u>Coptocerus rubripes</u> Bois.	<u>E. camaldulensis</u> bark
<u>Hesthesis cingulata</u> Kirby	<u>Baeckea behrii</u> flower
<u>Pachydissus sericus</u> Newm..	<u>E. leucoxylon</u> bark
<u>Phoracantha quinaria</u> Newm.	<u>E. incrassata</u> bark
<u>P. recurva</u> Newn.	<u>E. leucoxylon</u> bark
<u>P. semipunctata</u> Fab.	" " "
<u>P. tricuspi's</u> Newm.	" " "

## Laminae

<u>Ancita</u> sp.	<u>A. calamifolia</u> phyllode
<u>Platymopsis lateralis</u> (Pasc.)	" " "



## Cleridae

## Clerinae

Eunatalis lata Waterh.E. leucoxylon barkLemidia sp.A. calamifolia phyllodePhlogistomorpha blackburni Schklg.E. dumosa flowerPhlogistus imperialis Gorh.{B. behrii flower  
{E. dumosa flowerP. modestus Blkb.C. tetragona flowerScrobiger splendidus Newm.{A. calamifolia phyllode  
{E. viridis flower

## Korynetinae

Pylus fatuus Newm.E. leucoxylon bark

Beetles of all three families include both nocturnal and diurnal species. Nearly all the diurnal species are strikingly coloured, some cryptically (e.g. Platymopsis resembling a stem) and some mimetically (e.g. Hesthesis resembling an eumenid wasp). Many of the diurnal forms frequent flowers, feeding either on nectar (e.g. Atoichus and Hesthesis) or on other arthropods (e.g. clerids).

Most of the nocturnal species are attracted to light at night, but can be found during the day under the bark of eucalypts. Almost without exception these beetles have drab colours, usually either uniform brown or black, or mottled brown and black, resembling the colour pattern of eucalypt bark.

August, 1979

Victorian Entomologist

Continued (A collecting trip to North Q'land, K. Dunn).

H. alimena lamina Fruh. 1903  
Crystal Cascades, Mission Beach.

Yoma sabira parva (Butl.) 1876  
Mission Beach-sighted.

Vanessa kershawi (McCoy) 1868  
Castle Hill, Port Douglas-sighted.

Precis hedonia zolina (Fab.) 1775  
Cairns, Mission Beach.

Precis villida calype (God.) 1819  
Hartley's Ck., Port Douglas.

Cethosia cydippe chrysinpe (Fab.) 1775  
Mission Beach-sighted.

Vindula arsinoe ada (Butl.) 1874  
Crystal Cascades.

Cupha prosopoe prosopoe (Fab.) 1775  
Mission Beach-sighted.

Acraea andromacha (Fab.) 1775  
Port Douglas, Castle Hill.

Family Lycaenidae

Rapala varuna simsoni (Misk.) 1874  
Magnetic Is.

Hypolycaena phorbas phorbas (Fab.) 1793  
Magnetic Is., Cairns.

H. danis turneri (Waterh.) 1903  
Cairns.

Narathura wildei wildei (Misk.) 1891  
Cairns.

N. araxes eupolis (Misk.) 1890  
Magnetic Is.

N. micale amphis (Waterh.) 1942  
Cairns, Port Douglas, Mission Beach, Magnetic Is.

Danis danis serapis Misk., 1891  
Crystal Cascades.

D. hymetus taletum (W. & L.) 1914  
Kuranda.

D. cyanea arinia (Oberth.) 1878  
Cairns, Mission Beach.

Prosotas dubiosa dubiosa (Semp.) 1879  
Cairns.

to be continued.

## Australian Entomological Supplies

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WRITE FOR CATALOGUE

## CONTENTS

Minutes of Annual General Meeting-22 June,1979.....	33
Election of Office Bearers 1979/1980.....	34/5
Activities for Year 1978/1979.....	35/7
Treasurers Report.....	38
Presidential Address.....	39/41
Minutes of Council Meeting .....	41
Coleoptera of the Little Desert-Part one, J.W. Wainner....	42/3
"A Collecting Trip to North Queensland", Kelyvn Dunn, cnt.	44

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## OFFICE BEARERS 1979/1980

President - Mr. David Stewart, 15 Wynne St., W. Rosebud, 3940.  
Telephone-059-862705.

### Vice Presidents-

Mr. Peter Carwardine, 2A Victoria Rd., Mulvern, 3144  
Mr. Andrew Calder, National Museum, 71 Victoria Cr.  
Abbotsford, 3067. 4195200.

### Hon. Secretary-

Mrs. Nola Manskie-8 Smith Rd., Springvale Nth., 3171  
Telephone-8463673.

### Hon. Treasurer

Mr. R. Condron, 96 Shannon St., Box Hill Nth., 3129,  
Telephone 886300.

### Hon. Editor

Mr. J. C. Le Souef, P.O. Box 2, Blairgowrie, 3942.  
Telephone-049-888413.

### Excursion Secretary

Mr. Peter Carwardine-2A Victoria Rd., Mulvern, 3144  
Telephone 2118958, 5090622 (office hours)

### Immediate Past President.

Dr. Tim New-Zoology Dept., La Trobe University,  
Bundoora, 3083.

### Councillors

Mrs. Joy Burns, Mrs. Mary Le Souef, Dr. M. Malipatil,  
Messrs. Gordon Burns, Ray Manskie, David Crosby,  
Shane McEvey.

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## DIARY OF COMING EVENTS..

Friday 24 August-General Meeting, "On Tour" Gordon & Joy Burns.  
Friday 19 October-General Meeting "Dragonflies of the Top End"  
by J. Hutchinson.  
Excursion to Luxton in October, Leader Ray Manskie, date to be  
arranged.

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VOL 9 NO 5

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October 1979

Victorian Entomologist

Minutes of General Meeting held at Clunies-Ross House  
on Friday 24th. August 1979.

Members and visitors were welcomed to the meeting by the President, Mr. David Stewart.

There were 19 members and visitors present:

Mesdames Burns, Stewart, Holmes, Le Souef and Stahl, Messrs. D. Stewart, O. Rogge, P. Carwardine, J. Hallgarten, A. Calder, M. Hunting, P. Kelly, G. Burns, V. Babrett, B. O'Neill, R. Manskie, D. Holmes, R. Vagi and "Z" Le Souef.

Apologies-Mrs. Nola Manskie, Messrs. David Crosby, Ian Watkinson, Shane McEvey and Laurie and Kelvin Dunn.

Minutes of the previous General Meeting were passed on the motion of J. Hallgarten and seconded by A. Calder.

Correspondence- Inwards-Div. DJIR, NZ, Sciences Club, subscriptions from R. Fisher, Dr. Grant Miller, Journals from Ent. Soc. Aust. (NSW) Ent. Soc. Q'land, CSIRO, Karger Libri, T.C.P. Bd. Outwards-G. Miller.

Treasurers Report - There was a Credit Balance in the Cheque Account of £780.98 with £251.34 in the Publications Account. There now 50 financial members.

Excursions-Excursion Secretary, Peter Carwardine spoke on the proposed excursion to Buxton on October 21, further detail will be found elsewhere in this journal.

Books-Peter Carwardine drew members attention to the news that shortly the Australian Entomological Magazine will include a supplement on beetles by Dr. B.P. Moore, an eminent authority on the subject. With hundreds of species illustrated, some in colour, some in black and white with others in line drawings, we are indeed, fortunate to be able to subscribe to this, the first comprehensive book ever published on the beetle fauna of south-eastern Australia. Both Dr. Moore and Max Moulds are to be congratulated on their enterprise in bringing this to fruition.

Also mentioned was the Butterflies in Thailand by Bro. Annuay Pinratana, Volume One and Volume Three now available direct from the author.

General Business- Mentioned in the last Council Meeting, copies of the Constitution are now available and will be given to all new members thanks to President David Stewart who has had a number of copies xeroxed.

On the subject of Entrees, President David suggested that a few minutes be devoted to the matter at each General Meeting.

In preparing a list of the fauna and flora of the Otways, the Town and Country Planning Board has sent a request to the Society asking members to list and insect species taken in the area.

Peter Carwardine spoke briefly on the Friends of the Museum recently promoted to arouse public interest in the National Museum.

Exhibits-A cluster of 15 cocoons of the Gum Moth, *Antheraea loranthe* Luc., taken at Archer Point, near Cooktown, north Queensland. The moths had already emerged. They were shown by "E" Le Souef, who also commented on the recent trip as far north as Cooktown meeting entomologists in various centres. A surprising feature was the almost complete lack of insects in many of the normal collecting spots.

Guest Speakers for the evening were our own members, Joy and Gordon Burns who showed three films taken on their recent trips to the outback. As Joy has prepared a resume of her part of the talk accompanying the films, it would seem to be appropriate that it should be given here.

"Gordon and I have been travelling throughout Australia on our entomological expeditions for many years. While Gordon is attempting to catch his elusive beetles, I try to capture them on film.

We have discovered that the wind is no detriment to the movement of the beetles, in fact, that is when they appear most active. With still photography, using a flash of 1/1000 of a second, this movement is negated. In movie work, with frames taken at 1/16 second, even slight movement is enough to distract from the main subject. Consequently, most of the films are from larger subjects, seen en-route on our travels. All the films are taken "In the Wild" except for any titling.

Our first trip is one organised by the R.A.C.V. club into areas that the average camper will not attempt. The R.A.C.V. obtain details of supply points, maps and places of interest as well as supplying the necessary back-up team. Our second was via Inglewood, north to Lightning Ridge, the only beetles caught there were on scotch thistle-Narrabri then back to the Little Desert. Last season we travelled through outback New South Wales and Queensland then turned east to Rockhampton. We returned back through the Girrawarra National Park and lay to the Yanco-Murrayville road where we met other members of the club."

A vote of thanks was moved by Andrew Calder, congratulating Joy on the excellence of the photography and thanking her for the trouble she had gone to in presenting the films.

President David wished Andrew Calder bon voyage on his overseas trip.

The meeting closed at 9.50 P.M.



October 1979

Victorian Entomologist

Minutes of Council Meeting held at Clunies-Ross House  
on Friday 21st. September, 1979

President David Stewart chaired the meeting which opened at 8 P.M.

Apologies were received from Mrs. Nola Manskie, Messrs. Bob Condron, S. McIlvey and Andrew Calder.

Minutes of the previous Council Meeting held on 20th. July 1979 were passed on the motion of Gordon Burns and seconded by "Z" Le Souef.

Correspondence was received from CSIRO, Pergamon Press, News Bulletin, Ento. Soc and Ecos. There was also a request from Mr. K.R. Davidson for material for a natural history display at Yarram which was referred to Mr. David Holmes. Back issues were sent to Karger Libra.

Treasurers Report showed a credit of \$879.88 in the General Ac. and \$251.34 in the Publications Account.

Editors Report Sufficient material is available for the journal.

Excursions An excursion to be held on the 2nd. December to assist in the Westernport Watershed survey. To Duxton on 21st. October and a weekend camp in the Grampians in February.

General business. Regret was expressed by a letter from Dr. M. Malipatil tendering his resignation from the Council because of his transferring to Darwin.

There was discussion on :

1. Simplification of the posting of journals, if subs were posted to the Editor in the first place for record and sent on to the Treasurer.

2. Advertising rates to be published in the journal.

3. Two members to be co-opted to the Council.

4. The subject for the February meeting - a movie on bees.

5. The Secretary requested to write about the non return of the \$100 deposit on the Licola excursion.

6. An insert with the journal as a reminder of the time that subs are due to be undertaken by David Crosby.

7. Entrecs - David Crosby spoke on the need for assistance for some members to start the initial work on listing the contents of their collections and a reminder to others to make sure that they record the sightings on their collecting trips. He also spoke of the Abnormal Record sheet which had been included in the journal earlier in the year.

8. It was moved by Peter Carwardine and seconded by David Crosby that in future the statement of monies held for the following purposes, Entrecs, Equipment and Publications be recorded.

The meeting closed at 9.55 P.M.

--ooOoo--

WANTED.

WANTED: Copies of Wings and Stings. Peter Carwardine  
2A victoria Rd. Malvern 3144

October 1979

Victorian Entomologist

GOODING COLLECTION GOES TO CANBERRA.

That room in 3 Princess St., Warragul, stacked to the ceiling with 1000 storeboxes, a mecca for entomologists for many years, stands empty except for table and chairs. Here was housed the vast Gooding Collection of insects which was recently presented to the nation and has become part of the Australian National Insect Collection. With this event, it seems appropriate that some notes should be written here about the man who built up one of the largest private collections in recent years.

Charles George Llewellyn Gooding was born in Moe, Victoria in 1896. His grandfather, William Charles, came to Australia in 1834 and his father, also William Charles was born at Lovely Banks in Gippsland. Llew was one of a family of eight, going to school at Tanjil Bren, he eventually settled on a dairy farm, "Riversleigh Park", some miles north of Moe, where he later established a stud herd. In 1919 he married Hilda Nadenbousch, daughter of a Swiss watchmaker at Hazelwood. Their daughter, Margaret was their only child.

It was on this farm at Moe that he was able to develop his boyhood interest in collecting insects, netting and breeding out butterflies and doing his moth collecting at night, largely with a pressure lamp. It was through his habit of carrying the lamp in front of him that he was laid up for some time with carbon monoxide poisoning years ago.

As the bushlands about the farm provided him with many more specimens than he needed, he began exchanging specimens with other collectors in Australia, later expanding with overseas connections. In this way he built up his collection, mainly of moths and butterflies.

His association with Dr. Norman B. Tindale began in 1928 when the latter had noticed some Hemiaphysids in the Lyell Collection. George Lyell suggested that he go to Moe and see the rest of Llew's collection for himself. So began a close friendship which has continued over these many years.

The writer first met Llew in 1938 at Moe. In conversation he mentioned his interest in insects and when, for the first time was heard his familiar "just have a look at these before you go"! So impressed with his enthusiasm and the great beauty and variety of his immaculate collection that with a piece of fencing wire, some mosquito net and a length of dowelling another 40 years of collecting began. By a coincidence, the first specimens taken eventually became the types of *Candalides consimilis goodingi* Tindale.

In a letter written in 1942, he asked for "Mr. Wilson's address" and here too began a friendship which continued for the latter's lifetime.

October 1979

Victorian Entomologist

He wrote ten articles in the Latrobe Naturalist, a highlight, probably was his comments on the life history of *Pseudodipsas cuprea* Sands, found on a wattle in his garden.

His voluminous correspondence with collectors round the world must contain a store of information on the species found in his district. There was an interesting sidelight on this exchanging of his with overseas contacts. During a visit to Warragul in 1965, Dr. Tindale was elated to find among the foreign butterflies an extremely rare American species, a photograph of which had been requested from an American museum.

Of the many foreign butterflies and moths in his collection, Llew was particularly interested in his many species of Fritillaries so very sparsely represented in Australia. But it will be his tremendous number of the Hepialidae that will be of the greatest value to the A.N.I.C. There are long series of these moths, so variable in wing pattern. In the Moe district there are more than fifteen species which have appeared in the "Revision of the Australian Ghost Moths" by Norman B. Tindale, six types of which were taken by C.G.L. Gooding. Two species were named in honour of Llew and his wife, Hilda, with *Oxycanus goodingi* Tindale and *Oxycanus hildae* Tindale.

With the constant tie of his dairy farm, he was not able to travel extensively beyond his own district. In 1946 he joined Ras Wilson and Alec Burns in a visit to the Little Desert. Although most of the time the weather was cold and wet, they made good use of the sun when it shone. They returned via Hall's Gap, a letter from F.E. Wilson, at the time, listing the species taken. He had collecting trips to the Mt. Morgan and Monto districts in 1951 and 1954, returning again in 1964. He recalls with enthusiasm that he was very busy with the net indeed, taking some 3000 specimens on each of the trips.

He sold the Moe property in 1952, moving to a fattening enterprise in Yarragon, finally moving to Princess St., Warragul in retirement. Now, with his wife, Hilda, permanently in hospital, he plans to take up residence in Traralgon to be near his daughter and grandchildren.

The study of entomology in the future will be greatly assisted by Llew Gooding's contribution in material and knowledge.

J.C. Le Souef.

--ooOoo--

#### EXCURSION NOTICE

AN EXCURSION WILL BE HELD TO THE LABERTOUCHE AREA ON 2/12/79. The Ministry for Conservation are making a survey on which areas in the Westernport Watershed should be preserved, and Arturs Neboiss is collecting data on the entomological aspect. If you would like to help by attending and making a list of your days collecting, we will be leaving Dandenong Station Car Park at 10.00 AM (Melb. train arrives 9.59) The excursion will start at the Labertouche turnoff on North side of Princes Highway near 87 km post (= 54 miles) at 10.45 AM ENQUIRIES - Peter Carwardine.

# EXCURSION TO BUXTON

DATE - Sunday, October 21st

LEADER - Ray Manskie

MEETING PLACE - Depart 9.35AM sharp from corner of Whitehorse & Kangerong Roads, opposite Box Hill Fire Station. For those without cars, 8.48 AM train from Flinders St. arrives Box Hill at 9.13 AM

SECOND MEETING PLACE - 11.15 AM at Silver Stream Trout Farm, 99km post (61 miles) on the Maroonah Hwy. (Buxton is 101 km)

EXCURSION AREA - Is a couple of km to the West. Bring your family, this is a nice picnic area with small creeks.

TRANSPORT - If you require or can offer, phone

Peter Carwardine 509 0622 Office, 211 8958 Home.

MAPS - Broadbent No. 301, 150 km around Melbourne

- Broadbent No. 231, Eildon & the Acheron

- Dept. Minerals & Energy, Australia 1:50,000

No. 8023 - III Tagerty

- Dept. M & E, Australia 1:100,000

No. 8023 Alexandra

Food is available at Healesville &

Petrol should also be available

POLICE - Marysville Pack Rd. 63 3222

Healesville Maroonah Hwy 62 4422

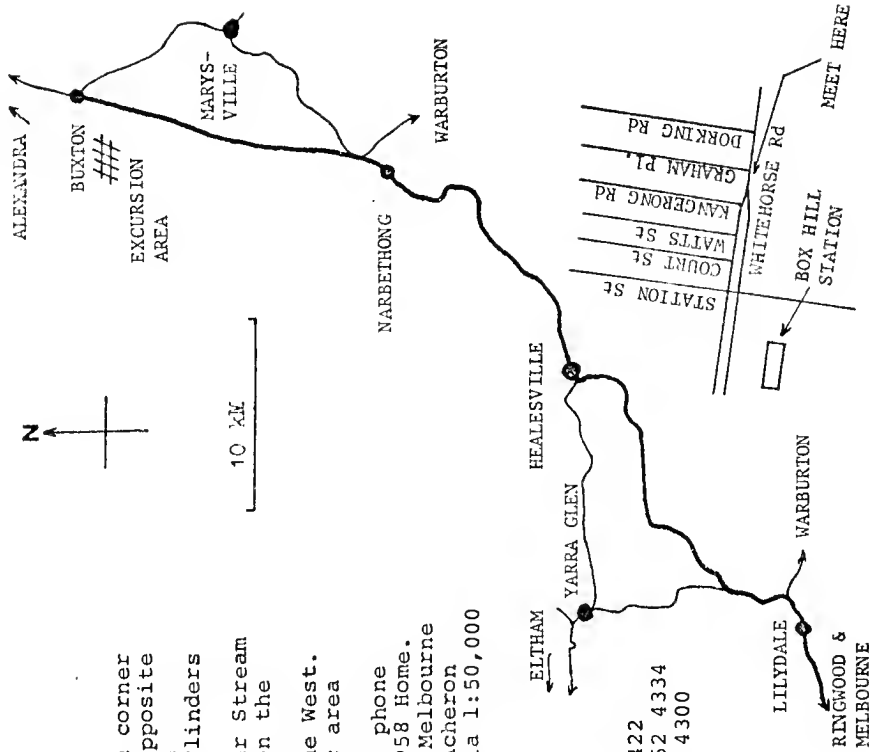
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HOSPITAL - 377 Maroonah Hwy H/ville 62 4300

From Buxton, Healesville & Marysville

Area Code = 059

ENQUIRIES - Peter Carwardine



October 1979

Victorian Entomologist

A SOCIAL TRIP TO COOKTOWN.

Not having been to Cooktown since 1972, Mary and I decided that in July this year we would renew acquaintance by taking the Hume and Pacific Highways instead of the usual Newell Highway. In this way we could pay a call on various collectors along the road.

It was indeed pleasant to spend a few days with Max and Barbara Moulds in Sydney and share in the daily happenings of an entomological household. With his Aust. Ent. Mag. and his printing together with his continuing work on Cicadas and Hawk Moths, there is little spare time. As far as his collection is concerned, he has many drawers of butterflies but his main interest lies in the 64 drawers of cicadas and 42 of hawk moths, all from Australia. With their present field trip to Cape York, no doubt many more specimens will be added on their return.

During our stay in Sydney, we also had the pleasure of an evening with the Smithers and the Peters with an animated conversation on matters entomological and canine too, with their interest in show dog breeding.

The run to Brisbane was uneventful except for our calling on Ian Morhaus and Grant Miller and friends at Stokers Siding, south of Murrumbidgee. We were able to look at many specimens and exchange gossip. The lass at Stokers Siding was the one we stayed with some years ago on Moolooloo, an outstation of Victoria River Downs in Northern Territory. What a contrast their home is now from the harsh brown stony VRD country when here they look out on beautiful green rain forest, sadly too busy these days to continue sending specimens south as she had done in the Territory.

After lunch with a brace of Mary's cronies staying on the Gold Coast for the bowling season, we made our way through the bright lights of this busy playground to Brisbane. Rather than take a high rise motel unit in the city, we took a van in the only caravan park to take our dog some miles out on town in the bushland. Last time we went to Brisbane, we got hopelessly lost but with a new road map, things were much better this time.

We went to the museum where Ted Dahms showed the various things we wanted to see and was a great help in our Ogyris work. We also saw something of Geoff Monteith's work in repinning and rehousing the collection. It was a great disappointment to have missed him as he had just left on a long awaited field trip to the Northern Territory. Our plans to be present at the July meeting of the Queensland Society had been upset by the petrol strike.

We had arranged to meet Greg Daniels at the Museum and he led us to Mt. Cootha where we had lunch and he was able to give us a run down on his news. Usually, Mt. Cootha is a prime collecting spot in Brisbane but on this warm July day there was nothing to be seen at all.

Time was starting to catch up with us even at this early stage so we had to keep moving if we were to reach Cooktown. So we had to be content with a telephone call to Sybil Monteith and Clyde Wild's parents.

October 1979

Victorian Entomologist

After enjoying coffee and having a swift look at some of the specimens with the aptly named Mt. Glorious labels we left the folk there and took the road north through the Gayndah country well known through its association with George Masters, one of the early entomologists. Just north of Monto we decided to investigate the destination of a roadside tourist sign to Cania Gorge. We found it a most interesting place but it was too cold at the time to camp for the night but worth noting for future reference.

Mainly with a view of learning something of the distribution of mistletoes in the Biloela district, I called at the Regional Research Station to see if there were any people there working on entomology. We were glad to find two enthusiasts in Frank Page and John Galloway who were able to give us the information we sought. However, the only specimens we were able to find were three larvae of Ogyris amaryllis meridionalis in the borer holes of a small tree on the outskirts of the town.

We spent a couple of nights with Ernie Adams in the cattle country I knew so well years ago. He took us out on his run, but although we were not successful with Ogyris, we did find a number of H. hexaguttata larvae just as Andrew Atkins had during one of his visits to the property. At the light in the evening, the only moth to be taken was an example of Crypsiphona occultaria while the few butterflies feeding on the Geraldton Wax in the garden included Theclinestus, a glass wing, Acraga, Lesser Wanderer, D. crysipus, crow, Eucore and the chequered swallowtail, P. demoleus.

In Townsville we set up camp in the caravan park on the highway not far out of town, just beside the drive-in theatre. It was a most interesting stay here with the twofold advantage of being on the edge of the Townsville Common and just beside the drive-in. It was, indeed, an experience to view at odd times during the evening the type of entertainment popular with picture goers in these enlightened days, such a contrast to "The Sheik" and "Beau Geste" we enjoyed in our younger days!

Naturally we had to have a day on the Townsville Common, enjoying the sight of great flocks of magpie geese and brolgas and the many other birds on the swamps and in the bush. Here was the only place we were to see butterflies in any numbers mainly Eurema hecabe, the yellow, Danais hamata, the blue tiger and the skipper Peplus lyelli, nothing of great interest and even a Ulysses flying along the main street of the city.

The high point of the distant hills skirting the west of Townsville is Mt. Stuart, which with Castle Hill is the favorite spot for hilltoppers. There was nothing at Castle Hill and even after the long winding drive up to the top of Mt. Stuart, the only thing on the wing was a very worn L. boeticus the very common pea blue. There were, however, a few larvae of the skipper Hesperilla malindeva on the gahnia growing on the slopes near the summit.

October 1979

Victorian Entomologist

After leaving Townsville, we turned off the highway and took the road up to the rainforest at Paluma. Again, on a lovely warm sunny day there was nothing on the wing at all so we continued on down through the tall gums and casuarinas to the more open country at Running River, a favourite spot for collecting for many years. We could see why the coleopterists were so keen on this area with so much tea tree about. Although there was much mistletoe, we only managed to find one empty pupal case in the limited time available.

And so, on to Cairns where we settled in at the Kedlynch caravan park again to relax for a few days. The sun, as always, was warm but the nights cold with nine degrees, even minus two at Herberton, we heard on the news. Cairns has always been a mecca for collectors where it would seem that insects abounded at any time of the year as we had found on earlier occasions. But this year conditions were not normal with only the usual ulysses and the odd Delias, Catopsilia and Appias baillina after the record wet season when Cairns saw seven feet of rain in a week in January. Although this was the case with butterflies, there was a great emergence of the handsome day flying moth, Alcidias zodiaca, to be seen everywhere flying in numbers.

The road to Cooktown is vastly improved since our first visit in 1962. There is still over 100 miles unsealed, rough enough but not bad and there are concrete causeways over the few remaining creeks unbridged. Although we set up camp under the mango tree at the back of the Sovereign we soon realised that the home cooked meals and the friendly atmosphere were no longer there. Had we been staying longer, we would have moved to the recently established caravan park near Finch Bay. We briefly looked at our collecting spots but there was little to be seen. However the short stretch of road past the Lion's Den did not let us down and some 20 species were recorded flying here. We were able to add two species to the list of things taken on previous occasions with Yoma sabira and Doleschallia bisaltide.

One of the surprises of the whole trip was when we pulled up for petrol. The chap on the pump spotted our nets and we were to learn that he was a keen collector, having settled in Cooktown for the purpose. We were to spend quite a bit of time with Clive and Heather Pratt before we left, going through the collection, not only of local butterflies, but of the many moths he had taken locally. He also mentioned the great influx of Alcidias zodiaca from the north, so many at Shiptons Flat that their weight even broke small branches from trees.

Back in Cairns again we met our Foundation Member, Clarrie Borch, spending a couple of weeks in the northern sun. As he was keen to find the collecting spot he has spoken of at our jubilee dinner, we set off next morning to look for it. But we were to learn that the bush track he had bumped over on the back of Alec Burns motor bike was now the Gillies Highway and the spot he knew was now a sugar farm, all so very different from his earlier days in 1929.

October 1979

Victorian Entomologist

After a few more days in Cairns, we took the road again for the south. On the way we called in at Mission Beach, surely one of the most attractive places on the Queensland coast. Here we saddened to see yet another big patch of rain forest being bulldozed ready for the plough, another example of the further destruction of our fast diminishing rain forests.

The only other place of interest on the way home was a call in at Isla Gorge, a favourite spot of Andrew Atkins and others taking that road through Theodore. This time we found devastation with the whole country burnt out. The ground in the valley below was bare with only half a dozen shrubs still alive on the top of the ridge. It will take some time for this country to regenerate again. We did manage to find a couple of Ogyris larvae in a Campanotus nest nearby which have now pupated and we will have to await emergence for identification.

As a matter of interest, we were away for nearly seven weeks covering 6000 miles.

J.C. Le Souef

--oJo--

#### ON THE CAMPVILLE.

Mark Hunting has transferred to Orbost where he has begun a concentrated assault on filling the blank spaces for Entres.

Continuing his work on his click beetles, the Elatridae, Andrew Salder has joined the little community in London on a two months overseas visit.

We are more than thankful the owner of a yacht that was to take Andrew Atkins from Guernsey to St. Marlo to photograph a skipper, decided against the voyage because of the forecast, heralding the hurricane which did so much damage to the Admirals Cup fleet. He really enjoyed catching up with Australian news in his meeting with Tim New over a beer in Kensington and spending an evening with Ian and Jill Common in their apartment.

Recent news from Ross and Julie Field told of another pass with honours and an A For Ross and an influx of both their families.

While Dr. M. Malipatil's appointment as Curator of Insects at the Darwin Museum will be a great loss to our Society, there is no doubt the Muli's being stationed there will add much to the entomological knowledge of the region.

Nola Manskie has again been in hospital for an operation but it is expected that this time the repair will obviate further visits.

During his recent school holidays, Kelvyn Dunn managed to collect some 250 specimens on a round Australia bus tour.

Dr. Norman B. Tindale is again coming to Australia to do further work on the Geitoneura among other interests. We hope to see something of him early in the new year.



October 1979

Victorian Entomologist

ON THE GRAPEVINE.Interstate:

If Max and Barbara Moulds' plans came to fruition, they should now be paddling up the Jardine on Cape York. With six other naturalists they were to take their boats 100 Km up to the headwaters of the Jardine, recording the fauna and flora along the way. With the trip a bit hazardous for young Timothy, he was to stay behind with Barbara's sister, joining them on their return to Cairns.

In northern NSW, Ian Morhaus is still enthusiastically collecting when time permits from his bees.

The ever hospitable Dr. Grant Miller is continuing to build up his already very extensive collection of butterflies, kept in a specially heated room in the winter to cope with the local cold climate.

In the Queensland Museum, Ted Dahms, with the assistance of Geoff Monteith is beginning the task of repinning and rehousing the collection. Geoff was enjoying a long awaited field trip to the Northern Territory while Sybil coped with their two small boys at home.

Greg Daniels is revelling in his new job of attending to the students collections at the University at St. Lucia.

In the delightful rain forest surroundings of his home not far from Brisbane, Tony Hiller is busy putting the final touches on a new cabinet to house his extensive collection.

At the Regional Research Station in central Queensland, Frank Page and John Galloway were busy carrying out research work on midges. Frank, from Brisbane has been on a hike with his boys through the Blackdown Plateau while John, from Burnley is surveying the local lepidoptera population.

Information from his parents in Brisbane told of Clyde Wild, based in Brazil, carrying out experiments on the control of Parthenium weed. Some members will recall Clyde's enthusiasm as a collector in his schoolboy days as a junior member of the Society.

Ernie Adams, one of the few remaining beetle collectors in northern Queensland, still spends what time is available with the net and log rolling, but, like everyone else in the north bemoans the advent of the cane toad and its devastating effect on fauna.

Stan Stirling, still hale and hearty in Kuranda recently had a visit from our old apiarist friend, Archie May, on his usual winter visit to the north.

October 1979

Victorian Entomologist

Family Nymphalidae

(Kelvyn Dunn list continued)

Danaus plexippus plexippus (L.) 1758  
Cairns, Magnetic Island-sighted.

D. hamatus hamatus (MacL.) 1826  
Magnetic Island.

Euploea core corinna (MacL.) 1826  
Magnetic Is., Mission Beach, Stratford, Hartley's Ck.

E. tulliolus tulliolus (Fab.) 1793  
Cairns.

Tallervo zoilus zoilus (Fab.) 1775  
Crystal Cascades.

Melanitis leda bankia (Fab.) 1775  
Ellis Beach, Crystal Cascades, Mission Beach, Magnetic Is.

Mycalesis sirius sirius (Fab.) 1775  
Cairns.

M. terminus terminus (Fab.) 1775  
Cairns, Magnetic Is., Mission Bch.

M. perseus perseus (Fab.) 1775  
Cairns, Crystal Cascades, Bingil Bay, Magnetic Is.

Hypocysta irius (Fab.) 1775  
Sth. Mission Bch.

H. adiante adiante (Hub.) 1827  
Cstl Cascades, Mt. Stuart, Castle Hill-Townsville.

Ypthima arcton arcton (Fab.) 1775  
S. Mission Bch.

Polyura pyrrhus sempronius (Fab.) 1793  
Castle Hill, Townsville, Magnetic Is.

Neptis praslini staudingereana de Nice. 1898  
Cairns, Cstl Cascades, S. Mission Bch.

Pantoporia consimilis consimilis (Bois.) 1832  
S. Mission Bch-sighted.

Mynes geoffroyi guerini Wall. 1869  
Crystal Cascades.

Doleschallia bisaltide australis Feld. 1867  
Mission Bch., -sighted.

Hypolimnas bolina nerina (Fab.) 1775  
C. Cascades, Magnetic Is., Mission Bch., P. Douglas.

H. misippus (L.) 1764  
Castle Hill, Townsville.

to be continued.

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## CONTENTS

Minutes of General Meeting-24 August 1979.....	45/48
Minutes of Council Meeting-21 September 1979.....	47
Gooding Collection Goes to Canberra.....	48/49
Excursion Notice-Labertouche.....	49
Excursion to Buxton.....	50
A Social Trip to Cooktown.....	51/53
On the Grapevine.....	54/55
"A collecting trip to North Queensland", K.Dunn.Cont.	56
-00000-	

## OFFICE BEARERS 1979/1980

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Mrs. Joy Burns, Mrs. Mary Le Souef, Messrs. Gordon  
Burns, Ray Manskie, David Crosby, Ian Watkinson,  
Shane McEvoy

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## DIARY OF COMING EVENTS

Friday 19 October-General Meeting-"Dragonflies of the Top  
End" by J.Hutchinson.  
Sunday 21st. October-Excursion to Buxton.  
Sunday 2nd December-Excursion to Labertouche area.  
Friday 14th December, 1979-General Meeting. Members Night.

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VOL 9 NO 6

DECEMBER 1979

# VICTORIAN ENTOMOLOGIST



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SOCIETY of VICTORIA

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# THE ENTOMOLOGICAL SOCIETY OF VICTORIA.

## MEMBERSHIP

Any person with an interest in Entomology shall be eligible for ordinary Membership. Members of the Society include professionals, amateur and student entomologists, all of whom receive the Society's Journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and study groups, of libraries and of University and Departmental staff.

## OBJECTIVES

The aims of the Society are:

- (a) to stimulate the scientific study and discussion of all aspects of Entomology,
- (b) to gather, disseminate and record knowledge of all Australian insect species,
- (c) to compile a comprehensive list of all identifiable Victorian insect species, and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in Entomology.

## MEETINGS

The Society's meetings are held at Clunies-Ross House, National Service Centre, 191 Royal Parade, Parkville, Victoria, at 8 P.M. on the second last Friday of even months, with the possible exception of the December meeting which may be held earlier.

Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with like interests. Forums are also conducted with short addresses by members on their particular interest so that others can participate in the discussion.

## ANNUAL SUBSCRIPTIONS

Ordinary Member	10.00 (Aust.)	approx 11.50 (U.S.)
Student, Associate Member	5.00 (Aust)	" 5.75 "
Journal posted surface mail		

No additional fee is payable. Associate Members, resident at the same address as, and being immediate relatives of an Ordinary Member do not automatically receive a copy of the Society's publications, but in all other respects rank as Ordinary Members.

## CONTRIBUTIONS TO THE "VICTORIAN ENTOMOLOGIST"

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of Entomology for publication within the Journal. Contributions are not restricted to Members, but should be responsible and original. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed, it would be of great assistance if they were typed on 14 (International quarto) paper, single spaced with double spacing between paragraphs, a margin on the left of 1 cm and on the right 5 mm.



December 1979

Victorian Entomologist

Minutes of the General Meeting held at Clunies Ross house on  
Friday October 19th. 1979

The President welcomed members and visitors to the meeting which opened at 8.15 P.M.

Attendance-Mesdames Burns, Le Souef, Manskie, Stewart, Miss Stahl, Messrs: Burns, Carwardine, Condron, Crosby, L & K Dunn, Eidersley, Fisher, J. Hallgarten, Hunting, Le Souef, McEvey, Manskie, O'Neill, Smith, Stewart, Vagi, Wilkenson and Williams.

Apologies-R. Besserdin, F. Hallgarten, D & J Holmes, J. Hutchinson.

Minutes of the previous General Meeting were passed on the motion of G. Burns, seconded by P. Carwardine.

Correspondence-Inward-M. Malipatil, Sciences Club, M.C.E.G.S.,  
Ent. Soc. & News Bulletin.  
Outward-M. Malipatil.

Treasurers report- There is a credit balance of £868.28 in the cheque account and £251.34 in the publications account, with 57 financial members.

Editors Report. Articles and reports are needed for the next issue of the Journal.

Excursions It is hoped that as many members as possible will attend the excursion to Labartouche on December 2nd., 1979, as all the data collected from the "Westernport Watershed" area is of most importance to A. Neboiss. Information sheets were handed to members present but further information may be obtained from Peter Carwardine, the Excursion Secretary. Members were asked to keep in mind a weekend trip to the Grampians, February 16th and 17th., 1980.

Exhibits-Mark Hunting displayed an attractive case of butterflies from South America and Georgia commenting that those from Georgia he had found very easy to take in the net.

K. Dunn exhibited a case of Australian butterflies taken during a recent school trip including some new records from Alice Springs.

Coral Stahl showed several of her particularly pleasing insect paintings with a request for specimens, set and unset, to paint.

New Book-Life histories of the South African Lycaenid butterflies was brought to the attention of members by David Stewart.

General Business- Thanks were extended to D. Holmes for the 12 cases of butterflies and to David Stewart for an exhibit of fossils and M. Le Souef for a poster, all of which were displayed at the recent Yarram Natural History Club Exhibition.

December, 1979

Victorian Entomologist

The two vacancies on the Council were filled with the appointment of Ian Watkinson and Brian O'Neill.

A proposal to make Nigel Quick a Life Member of the Society was made by David Crosby and seconded by "Z" Le Jouef was passed by the meeting. David Crosby spoke on Nigel's contribution to the Society especially with his Entrees program.

Guest Speaker - Due to circumstances beyond his control our speaker for the evening, Jim Hutchinson, was unable to attend. He was to have spoken on "Dragonflies of the Top End" and it is hoped that he will be able to give this address at a future date.

Entrees-David Crosby very ably addressed the meeting on the Entrees program again stressing the point that all data collected by members is most important. He answered a number of queries from members concerning aspects of the scheme. He was thanked by the President for the valuable information he had imparted.

The next General Meeting is to be held on December 14th. 1979. This is to be the usual Christmas get together with supper.

The meeting closed at 9.20 P.m.

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Minutes of the Council Meeting held at Clunies-Ross House  
on Friday 23rd. November, 1979.

President David Stewart chaired the meeting which opened at 8.05 P.m.

Apologies were received from Brian O'Neill.

Minutes of the previous Council Meeting held on 21st. September 1979 were passed on the motion of Peter Carwardine and seconded by Ray Manskie.

Correspondence was received from Nigel Quick, Ent. Soc. Q, Ent. Soc. Aust (N.S.W.), bulletins, World Wilderness Congress, Clunies Ross Mem. 100th, A & R Bookshops, The Convention.

Treasurers Report Balance in Cheque Account £941.10 and Publications Account £251.54.

Editor's Report Sufficient material for the next journal

Excursions.

Labertouche-December 2nd, 1979  
Grambians-February 16th and 17th, 1980  
Labertouche-March 2nd., 1980

General Business

A warm welcome home was made to Andrew Calder, who made some comments on his recent trip to the UK.

December 1979

Victorian Entomologist

General Business

A warm welcome home was made to Andrew Calder who gave some sidelights on his recent trip to the UK.

Following discussion regarding the program for 1980 tentative arrangements are as follows :

February 22nd. Jim Hutchinson.  
 April 10th. - Andrew Calder.  
 June 20th. Annual General Meeting.  
 August 22nd. - Shane McEvey.  
 October 24th - To be arranged.  
 December 19th. Members Night.

A suggestion was made that a better typewriter be acquired for the Editor.

Regarding back issues, it was decided that those concerned be advised that unavailable issues may be photostatted from the completed set from the Victorian State Library.

Advertising rates to be published in the Journal, increased slightly to £5 per half page.

The meeting closed at 9.15 P.M.

The next Council Meeting will be held on March 21st, 1980

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ON THE GRAPEVINE

Sorry, but this is one of the rare occasions when there simply isn't enough room left to report on personal doings at length.

Congratulations to Nigel Quick on his elevation to Honorary Membership in recognition of his establishing the Entrees Scheme.

Gosh ! How we envy Shane McEvey his three months stay on the Mt. Adolphus, Moa and Thursday Islands to the north of Cape York in search of Drosophilids, cousins of the little vinegar flies we know so well at home. We wish him good hunting.

Our Society was represented at an address by the Chief of the CSIRO Entomological Division, Dr. Doug. Waterhouse to a packed house at the annual Royal Society Soiree recently. Even the most sour of the scientists in the audience must have been impressed by the beauty of the incredible butterflies on the speaker's tie.

Spring collecting in the Grampians saw the Stewarts, the Lansbies and ourselves on short visits while we called at Kiata on the way to commiserate with Keith Hateley on the fire which destroyed his caravan and workshop. He told of Otto Rogge photographing there too.

The Editor and his staff wish you a very merry Christmas and may you add much to entomological knowledge in the coming year.

December 1979

Victorian Entomologist

REPORT FROM ENGLAND

by Andrew Atkins.

The cold winter of 1979 and the following 'average' summer brought little change to the entomological grid map records of the British Isles. One significant news item, however, reminded the world that in any ecosystem some components run a precarious life. The Large Blue, Mesalina arion arion (Linn., 1758), is now thought to be extinct. The failure of females of this years brood to produce fertile eggs may have eliminated the last known colony of this Lycaenid from England and added another name to the growing list of Britain's disappearing fauna.

The Large blue has been dear to the hearts of the British Naturalist since it's life history was discovered many years ago. At that time it was to be found locally throughout the chalk-hill downs of southern England, wherever it's foodplant, wild thyme, was common. Although the newly hatched larvae of this blue fed on the flowers of this plant, it was discovered that the remainder of it's juvenile life was spent in the nests of a particular species of ant where it reverted to a carnivorous food of ant larvae. This peculiar habit is not unique amongst the Lycaenidae; there are examples of carnivorous species in Europe, Asia, Africa, Australia, etc. However this was the largest and most beautiful of Britain's Blues—a prize for the collectors.

Several theories have been put forward to explain the decline in the numbers of British butterflies during the last decade. Unfavourable weather, trampling of habitat, increase in agriculture, the 1976 drought and pesticides have been the most popular. In spite of such apparent adverse conditions a few species such as the White Admiral and Common butterfly have actually increased their range. Such fluctuations in numbers are a common phenomenon in some butterfly species, especially so for populations at the furthest extent of their range—as many are in England, but the significant feature of the Large blue's apparent extinction is that it has done so in spite of attempts to save it. Scientific teams have been monitoring the breeding sites, assessing the habitat, numbering the populations and protecting the colonies and maintaining their environment—but still the butterfly perished.

One interesting factor has come to light. The Large blue is very local even in Europe (where it too is declining). It generally needs a particular environment of low herbage, characteristic of chalk downlands, and that this environment has, before the expansion of agriculture at least, been maintained by the regular cropping of rodents—particularly rabbits. Myxomatosis, ironically, has greatly reduced the rabbit in England and this factor, together with the Large blue's dependance on specific foodplant and host-ant choice and several unfavourable climatic seasons may have been responsible for the precarious position that this species held in the ecosystem.

'Where have all the butterflies gone?' is a question often heard in England now. The answer, of course, is that apart from a few threatened or extinct species such as the Large blue and Black-Veined White-they have'nt gone; just contracted their range to the odd, often widely-spaced and small stands of their natural habitat, the woods, the fens, the moors and marshes and the chalk hills. Pesticides, it is true, have taken their toll, but most important, has been the 'reclaiming' of these habitats for pasture and forestry, thus eliminating larval foodplants and adult nectar sources. Some butterflies, however, are still quite common in parks and gardens and around the hedge-rows of the countryside. The small Tortoiseshell, Peacock, the Large, Small and Green-veined Whites, Gate-keeper, Speckled Wood and Meadow Brown are common butterflies, but these species rely on the abundance of garden vegetables, grasses, weeds and flowers for their survival. It is the marsh and woodland butterflies that are less frequently seen, their widely separated islands of habitats set in vast areas of ploughed and grazed land no longer permit casual sightings by the enthusiast. Furthermore a lack of warm humid summers in Britain have kept the annual migrations of Clouded Yellow, Red Admiral and Painted Lady to a minimum.

One example of population decline in British butterflies is seen in another Lycaenid, the White-letter hairstreak (Styponia w-album, Knoch, 1782) the larvae of which feed mainly on Elm, especially Wych Elm. Devastation of the food-plant by Dutch-Elm disease is blamed for the scarcity of the butterfly.

In June I was fortunate to see and photograph the Chequered Skipper (Carterocephalus palamon, Pallas 1771), in its natural habitat in Scotland. This species has not been seen in England for three years and it has been suggested that elimination of certain specific requirements in its swamp-glade habitat has been a major factor in the apparent extinction of the skipper in this country. Other skippers, such as the Silver-spotted (Nesperia comma comma Linn. 1758) are rapidly disappearing from former habitats.

The picture is not entirely bleak, however. A walk in any substantial wood in England will provide sightings of a significant butterfly fauna especially during June, July and August. One such wood-or rather three woods-Great Beech/Butleigh/Compton, is close to my home in Somerset. It comprises a 5 to 6 miles ridge crested in a mixed forest of old oak woodlands and pine plantation running to an altitude of 150 metres. The White Admiral can be seen gliding through the sunlit thickets of honeysuckle and in small clearings of this wood the Silver-washed Fritillary is frequently observed. Late in summer the Brown Hairstreak emerges, the males keeping to the Oak Forest canopy. In this area there has been a recent sighting of the Duke of Burgundy Fritillary, and less recently a record of the Purple Emperor. The ungrazed fringes of the woodlands provide good habitats for Wall Browns, Meadow Argus, Kinglets, Marbled Whites, Orange Tips, Brimstones, Purple Hairstreaks, Grizzled Skippers, Large Skippers and the occasional Pearl-bordered Fritillary.

Near the chalk and limestone-capped ridges are patches of open spaces of heath. Many wildflowers grow in these areas and attract in late spring, summer and autumn, a multitude of butterflies, including Small Heaths, Marbled Whites, Common Blues, Chalk-hill Blues, Brown Argus, Green Hairstreaks, Small Skippers and Dingy Skippers. A list of the species found in the vicinity of Butleigh appears at the end of this manuscript.

December 1979

Victorian Entomologist

also included are some records for greater London which were noted during my stay last summer and some species of butterfly that I recorded for the Channel Islands this summer.

I visited Guernsey in the Channel Islands during August, 1979. Guernsey, like much of England, has suffered a drastic reduction in 'natural vegetation', but there are still some areas of endemic cliff vegetation, particularly in the SE of the island. The Gate-keeper is still common on the island and the Grayling can be found on the wind battered cliff rocks. The Holly Blue is quite common in the wetter, sheltered woodlands gullies. A number of High Brown fritillaries were seen flying rapidly over the Gorse heathlands, adjacent to the coast. One particular butterfly, the Large Chequered skipper occurs on the Islands of Jersey - the only known occurrence in the British Isles. However I was too late to observe adults of the hesperiid.

During my stay in the Channel Islands I visited, with a friend, Jane Wyllie an ornithologist from Lutleigh, the islands of Sark and Herm. These islands are havens for many coastal and sea birds. A number of butterflies were seen near undisturbed areas of cliff-top heath, including two species of fritillary. The small Copper was not uncommon in Gorse-heath throughout the islands. Late in August numbers of Painted Lady and Red Admiral appeared, apparently having flown from the nearby French coast.

The summer has now finished, and once again the day-length has shortened. The tourist season in London is over, allowing the visitor a little more space to manoeuvre. One mecca for the tourist is the British Museum (Natural history), a must for the entomologist. I have been making regular 'sorties' to this massive but grand building since my arrival in this country. The building, designed by an architect named Waterhouse, is not an unfriendly piece of Victoriana with its warm coloured stone walls and carved window surrounds, door architraves and pillared towers. Inside the impressive doorway you will meet the inevitable 'security search' wardens and behind them in second line defence, a face-to-face (or rather face-to-kneecap) confrontation with a hungry looking *Brontosaurus* skeleton. The visitor, undaunted by this ferocious welcome, will find himself wandering through a bewildering array of hallways, each with a compact display of educational exhibits, the sort of 'public involvement' visual displays and machines that illustrate 'The Biosphere', 'Human Biology', etc. In fact he will find very little of the stuffed carcase and mounted bird exhibit. In alcoves to the rear of the halls, almost hidden, are solid, closely guarded doors. Should the visitor venture beyond these doors, he would almost certainly become lost in a maze of Natural History departments.

One such department, the Lepidoptera Section, alone has three floors packed tight with store cabinets and boxes brimming with set and pinned butterflies, many gathering the soot and dust of London. Between the avenues of cabinets the museum staff scurry in an endless battle to research and record the world butterfly fauna. In the bleak winter light, cornered by store-boxes and piles of manuscripts, visiting researchers can be found on some Charaxes from darkest Africa or piercing a Pavilio into boards of polystyrene. Around the corner the ancient lift-cage clatters to a stop. Another specialist arrives. Open the cabinets and brilliant colours burst forth, dazzling the eye. Thousands of rows

December 1979

Victorian Entomologist

of every imaginable butterfly, some common, some rare and some extinct. The Australian butterflies are well represented, but among them there are many species that in their habitat are becoming rare. Precarious and vulnerable butterflies such as Hypochrysa argollo, Ocyris ianthis, Ocyris atanes, Ocyris isma, Pseudodipsas pyrmecophila, Heteronychia cordace, Heteronychia paradelpha, Argynnis hyperbius, Oriesplanus munionga, Hesperilla flavescens, Hesperilla chaetola are just some of the threatened species in Australia. Is it time to study these butterflies or is it too late as it appears to have been for the Large Blue in Britain?

List of butterfly species recorded from the London area, Rutleigh (Somerset) and the Channel Islands 1978-1979. Andrew Atkins.

### HESPERIIDAE

Grizzled Skipper, Pyrgus malvae malvae Linn. 1758. B.

Dingy Skipper, Argynnis tages Linn. 1758. B.

Large Chequered Skipper, Heteropterus morpheus Pallas 1771. J. X  
(pers. comm., H. Amy).

Chequered Skipper, Carterocephalus palaemon Pallas 1771, (Ft. William Scotland)

Small Skipper, Thymelicus sylvestris Poda 1761. A, B.

Large Skipper, Chlodes venatus Bremer & Grey 1857. A.B.

### NEHEBLIIDAE

Duke of Burgundy Fritillary, Hamearis lucina Linn 1758. B.

(pers. comm. J. Keylock)

### LYCAENIDAE

Brown Hairstreak, Thecla betulae Linn. 1758. B.

Preple Hairstreak, Quercusia quercus Verity 1943. A, B.

Green Hairstreak, Callopyrgus rubi Linn. 1758. B.

Small Copper, Lycaena phlaeas phlaeas Linn. 1761. A.B.C.D.

Holly Blue, Celastrina argillii Linn. 1758. A.B.C.D.

Brown Argus, Aricia aristis aristis Schiffermueller 1775. B.

Chalk-hill Blue, Lysandra coridon coridon Poda 1761. B.

Common Blue, Polyommatus icarus Rottenburg 1775. B.C.D.

### PIERIDAE

Large White, Pieris brassicae brassicae Linn. 1758. A.B.

Small White, Pieris rapae Linn. 1758. A.B.C.D.

Green-veined White, Pieris napi napi, Linn. 1758. A.B.C.D.

Orange Tip, Anthocharis cardamines Linn. 1758

Brimstone, Gonepteryx rhami Linn. 1758. B

### NYMPHALIDAE

Purple Emperor, Apatura iris Linn. 1758. B. (pers. comm., J. Keylock) X

White Admiral, Limenitis camilla Linn. 1763. B.

Peacock, Inachis io Linn. 1758. A.B.

Red Admiral, Vanessa atalanta Linn. 1758. B.C.

Painted Lady, Vanessa cardui Linn. 1758. B.C.

Small Tortoiseshell, Glius urticae urticae Linn. 1758. A.B.C.

Comma, Polyommatus c-album Linn. 1758. A.B.

Silver-washed Fritillary, Argynnis paphia paphia Linn. 1758. B.

Dark Green Fritillary, Mesonacualia aglaja aglaja Linn. 1758. D.

(unconfirmed identification)

High Brown Fritillary, Fabriciana adippe adippe Schiffermueller 1775 CD

Pearl-bordered Fritillary, Glossiana euphrosyne Linn. 1758. B.

Marbled White, Melanargia palathea palathea Linn. 1758. B.

Grayling, Hipparchia semele semele Linn. 1758. C.D.

December 1973 Victorian Entomologist

Meadow Brown, Higha jurtina jurtina Linn. 1758. A.B.C.Kingleet, Arbanotus hyperantus Linn. 1758. A.Gatekeeper, Pyronia tithonus Linn. 1771. B.C.D.Small Heath, Coenonympha pamphilus pamphilus Linn. 1758. A.B.D.Speckled Wood, Pararge aegeria aegeria Linn. 1758. A.B.C.D.Wall Brown, Lasionota merera merera Linn. 1757. B.C.

A-London Area (Wimbledon, Richmond, Mitcham Norbury). B-Butleigh Woods and surrounding area, Somerset. C-Guernsey, C.I., D-Sark &amp; Herm, J, Jersey.

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AN UNUSUAL SPRING.

by Joy & Gordon Burns.

After a very dry winter, spring had brought unseasonally heavy rain to Victoria. The plants and flowers responded with a rash of growth and colour. Ideally, we thought for jewel beetles.

We started our main collecting trip for the season with the Vic. Ent. excursion to Suxton. It appeared too early for Euprestidae as only one species was taken, a Melobasis which flew on to David Stewart's hat.

Passing through Inglewood on our way to the desert country of north west Victoria which was our destination, we stopped at one of our favourite collecting spots. Except for S. sanguinosa which was quite plentiful, only occipitaculata, parallela and australasiae in small numbers were seen.

On arriving at the Little Desert the sky threatened so we made a short trip to Adelaide to visit Dr. Shelley Barker and see his comprehensive collection of Stigmatera (Castiarina) Euprestidae in the Adelaide Museum.

We returned to Hill via the Murrayville-Yanac road. During the next couple of weeks we visited as many of our main collecting spots every few days but the pattern remained the same. The Euprestidae emerged in only very limited quantities and then only the common species. It was noted that the Mordellids, wasps and flies which are usually quite plentiful, were few and far between. It is now appearing that the wasps particularly are paralleled to the jewels in that when the beetles are plentiful, the wasps appear to be also while if there are no wasps there are no beetles.

Following is a list of species recorded in the Desert areas. It is interesting to compare this list with that of those taken at the same time last year. (Vic. Ent. Vol. 9, No. 2.)

<u>Glebeis-6 unknown species</u>	<u>Stigmatera (Cast) Kirbyi</u>	
<u>Melobasis spaciola</u>	" "	<u>occipitaculata</u>
" <u>cuprifera</u>	" "	<u>octospilota</u>
<u>Stigmatera macularia</u>	" "	<u>pallidiventris</u>
" <u>sanguinosa</u>	" "	<u>parallela</u>
" ( <u>Cast</u> ) <u>argillacea</u>	" "	<u>picta</u> (ssp.)
" " <u>australasiae</u>	" "	<u>malleana</u>
" " <u>crenata</u>	" "	<u>sexolaginata</u>
" " <u>occipitaculata</u>	" "	<u>vittata</u>
" " <u>globicollis</u>	" "	<u>xanthospilota</u>

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Excursion Notice. There will be a followup excursion to Labertouche on the End March, 1980 in search of the later emerging species.



December 1979

Victorian Entomologist

PROGRESS OF THE "ENTREES" PROJECT.

By D.F.Crosby.

As most members will know, the Society has as its major aim, the accumulation of distribution records of all Victorian insects with the object of making these records available for future scientific use. This has been named the Entrees project. . (ENTomological RECOrdS.)

In order to record other important data together with just the location, a special "Individual Record Sheet" has been drawn up and a Manual prepared for use by contributors to the scheme. These are freely available to all entomologists willing to contribute to the project with data from personal specimens and observations or specimens in other collections.

Ultimately a computer will be used to store the data to make it rapidly available in whatever form is required. This could include lists of species by locality or time, by collection, by habitat, etc. To give some idea of what can be produced, a typical distribution map of the butterfly Preixena lathoniella herceus in Victoria is shown. This map was prepared about three years ago and published in the October 1976 issue of the "Victorian Entomologist". It is based on a large number of contributions plus Museum records but has not been expanded since then due to lack of additional data.

The map shows the individual 1: 250,000 map areas (designated by letters) with each divided into the standard 15 minute grids. Localities are code referenced to this map on a simple basis explained in the manual.

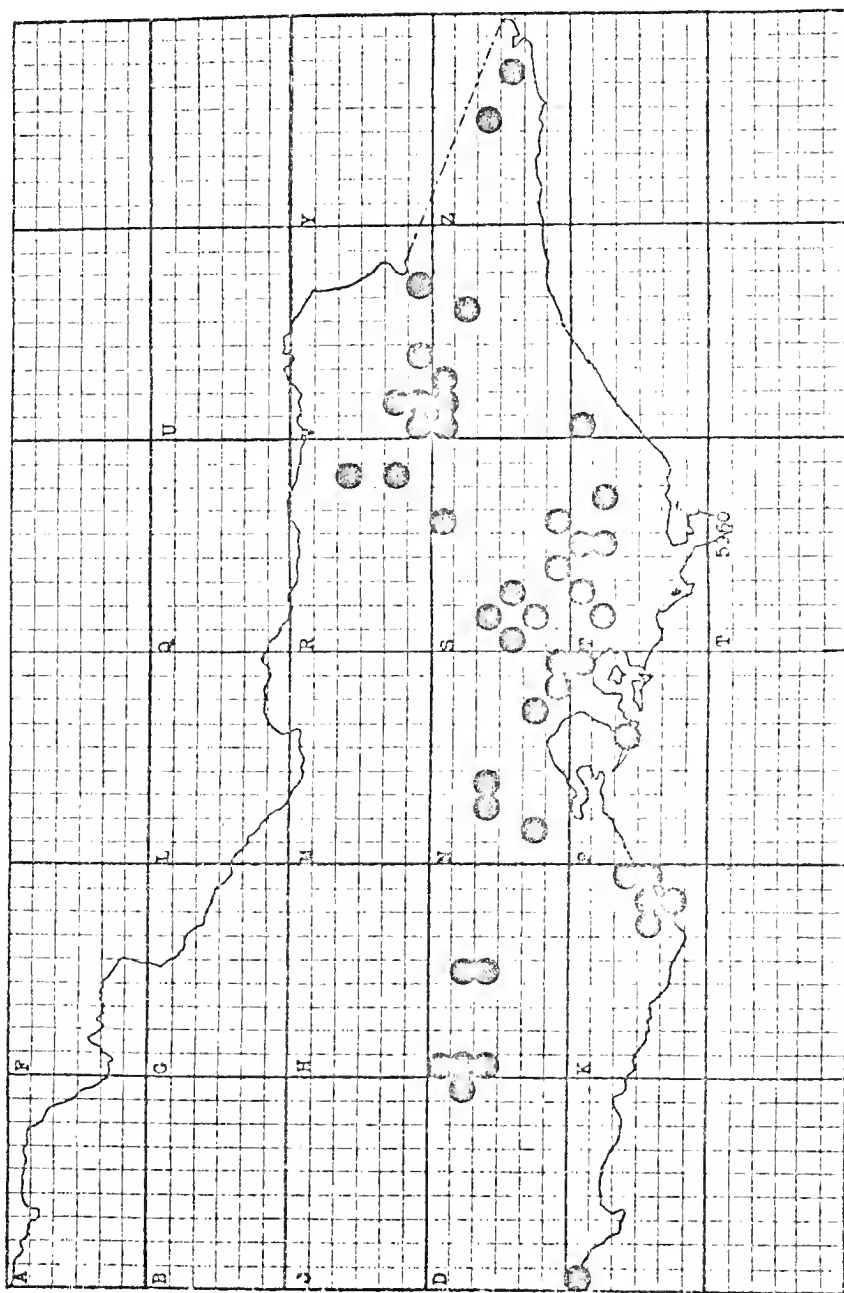
Other maps will be produced when sufficient data has been accumulated. Unfortunately the supply of records for processing has tapered off greatly and all members are particularly requested to send completed Record Sheets to the writer as soon as possible. It is suggested that each member make this a project for next winter when a start could be made on specimens caught and observations made during the current season.

Seminars will be held at Society meetings to assist members to prepare their Record Sheets and reference maps will be available also to allow accurate grid references to be obtained.

A copy of the "Individual Record Sheet" is included in this issue or your journal. You will note that most of the requested information is readily obtainable, and, if not, the particular lineway be left uncompleted. Those lines which are not regarded as essential are numbered 47, 49-52, 57, 62-63, 72-73, 74, 75, 76.

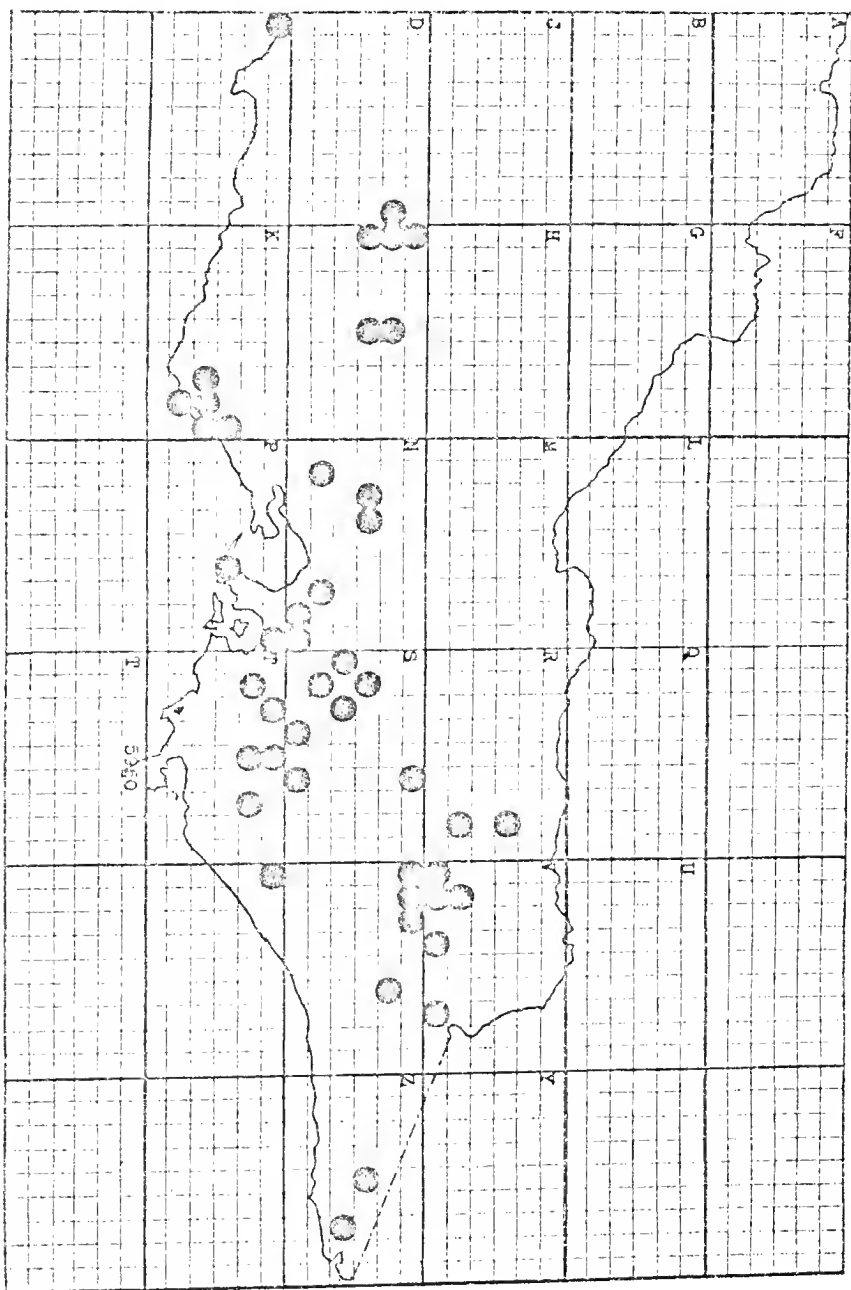
Assistance can be given to individual members who would like some help in preparing the records from their own collections. This can be arranged by contacting the writer.

1 - 2	ORDER	Obtain Code No. from Manual. Double-check.
3 - 6	FAMILY	Obtain Code No. from Manual. Double-check.
7 - 26	GENUS	<u>GREIXENICA</u>
27-46	SPECIES	<u>LATTONIELLA</u>
		( Omit sub-species )
47	cf/aff.	Optional: if used, insert an asterisk.
48	SOURCE	S- specimen-backed: O- obs. only: L- literat.
49-52	DETAILS	Person or Institute maintaining specimen, <u>or</u> Authorised abbreviation for literature.
53-56	COLLECTOR	Recorder's No. (inside cover of Manual), or if not recorder, insert authorised abbrev.
57	RESTRICT	AUTHORISED USE ONLY.
58-61	GRID REF.	10-minute resolution. District: Not for data bank.
62-63	Wannegrid	Optional: 1-minute resolution, 00-99.
64-71	DATE	DDate : MMonth : YYYYear
72-73	HABITAT	Optional: Construct from available terms.
74	FACTOR	Applies to one (O), few (F), many (M) specimens, <u>or</u> any no. of bred (B) or juvenile (J) spec.
75	DATE CLASS	Insert 'O' for records <u>prior to</u> 1960.
76	OTHER DATA	Endangered (E), rare (R) species, or a type- specimen ( H, A, T. ) See Manual.
77-80	DATA BY	Recorder's own no. Recorder is responsible for accuracy of identifications made by him/herself.



Provisional Distribution of *Oreixerion lathenifella hercynia* in Victoria.

Provisional Distribution of *Cratichneumon lernaeiformis* in Victoria.



EXCURSION TO THE GRAMPIANS

DATE - February 16 and 17, 1980.

ACCOMMODATION - Grampians Gardens Caravan Park, just before Halls Gap, at cnr. of Stawell & Ararat Roads. Phone 56 4244. Powered sites, on-site vans & cabins. Shop - food, ice & petrol. Please make your own bookings. There are also motels at Halls Gap.

TRANSPORT - If you require or can offer, please phone Peter Carwardine. Distance approx. 260 km (160 miles) via Ararat, Moyston & Pomonal.

EXCURSION - Will depart caravan park 12:00, a message will be left at the shop for latecomers. Probable excursion areas will be Reeds and Boroka Lookouts. Night collecting with lights may be done also.

FOOD - Cafe & Take-Away available Halls Gap & Ararat. Take container for drinking water.

MAPS - Broadbent No. 205 The Grampians

- Forests Commission Victoria, The Grampians State Forest Map (1:190 000)

- Dept. of Minerals & Energy 1:250 000 HAMILTON

(Also HALLARAT is of some use)

- Dept. of Minerals & Energy 1:100 000 GRAMPIANS

(Also Ararat is of some use)

POLICE - Ararat 52 2233, Stawell 58 2233

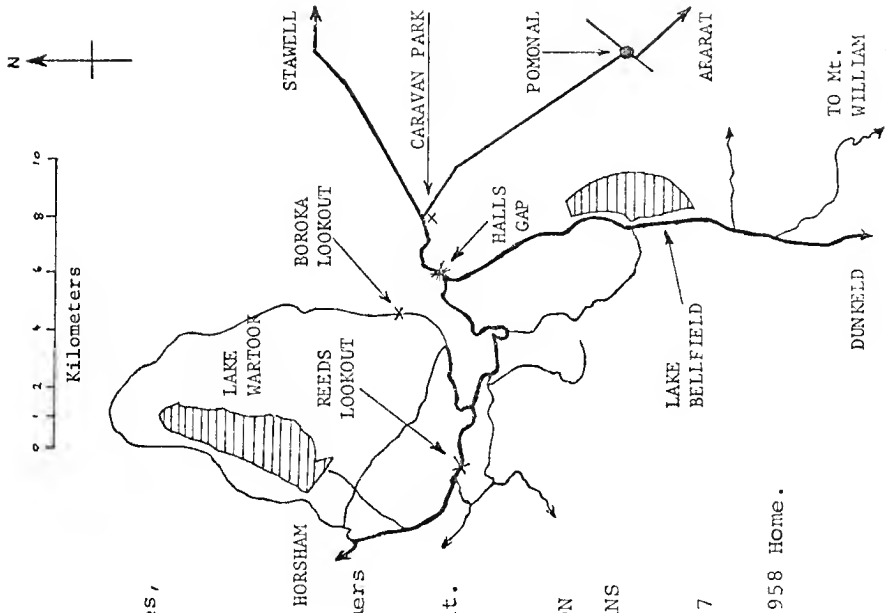
DOCTOR - Ararat Medical Centre, 55 High St. 52 2311

Stawell, Dr. A. A. Gray 40 Main St. 58 1007

HOSPITAL - Ararat, Girdlestone St. 52 2221

Stawell, Sloane St. 58 2255

ENQUIRIES - Peter Carwardine 509 0622 Office, 211 8958 Home.





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## CONTENTS

Minutes of General Meeting-19 October 1979.....	57
Minutes of Council Meeting-23 November 1979.....	58
On the Grapevine.....	59
Report from England by Andrew Atkins.....	60/64
An Unusual Spring by Joy and Gordon Burns.....	64
Progress of the Entres Scheme by D.F.Crosby.....	65/68
Excursion to the Grampians.....	69

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Ray Manskie,David Crosby,Ian Watkinson,Shane McEvey,  
Brian O'Neill.

-ooOoo-

### DIARY OF COMING EVENTS

Friday 14th December-General Meeting-Christmas Gathering.  
Friday 23rd February-General Meeting.  
Sunday 2nd March-Excursion to Labertouche.  
There will not be a Council Meeting in February.

-ooOoo-

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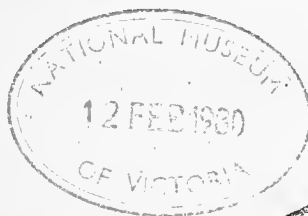




VOL 10 NO 1

FEBRUARY 1980

# VICTORIAN ENTOMOLOGIST



Journal of  
The ENTOMOLOGICAL  
SOCIETY of VICTORIA

Registered for posting  
as a periodical Category B

Price £1.

# THE ENTOMOLOGICAL SOCIETY OF VICTORIA.

## MEMBERSHIP

Any person with an interest in Entomology shall be eligible for ordinary Membership. Members of the Society include professionals, amateur and student entomologists, all of whom receive the Society's Journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and study groups, of libraries and of University and Departmental staff.

## OBJECTIVES

The aims of the Society are:

- (a) to stimulate the scientific study and discussion of all aspects of Entomology,
- (b) to gather, disseminate and record knowledge of all Australian insect species,
- (c) to compile a comprehensive list of all identifiable Victorian insect species, and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in Entomology.

## MEETINGS

The Society's meetings are held at Clunies-Ross House, National Service Centre, 191 Royal Parade, Parkville, Victoria, at 8 P.M. on the second last Friday of even months, with the possible exception of the December meeting which may be held earlier.

Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with like interests. Forums are also conducted with short addresses by members on their particular interest so that others can participate in the discussion.

## ANNUAL SUBSCRIPTIONS

Ordinary Member	10.00 (Aust.)	Approx 11.50 (U.S.)
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No additional fee is payable. Associate Members, resident at the same address as, and being immediate relatives of an Ordinary Member do not automatically receive a copy of the Society's publications, but in all other respects rank as Ordinary Members.

## CONTRIBUTIONS TO THE "VICTORIAN ENTOMOLOGIST"

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of Entomology for publication within the Journal. Contributions are not restricted to Members, but should be responsible and original. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed, it would be of great assistance if they were typed on A4 (International quarto) paper, single spaced with double spacing between paragraphs, a margin on the left of 1 cm and on the right 5 mm.

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February 1980

Victorian Entomologist

Minutes of the General Meeting held at Clunies Ross House on  
Friday December 14th 1979.

The President welcomed members and visitors to the meeting which opened at 8.20 P.M.

Attendance-Mesdames Burns, Dunn, Holmes, Le Souef, Manskie and Stewart  
The misses Thornton, Dunn and Stahl. Messrs. Burns, Calder, Carwardine,  
Crosby, L & K Dunn, J. Hallgarten, Holmes, Johnson, Le Souef, Manskie,  
O'Neill, Dr. Owen, Messrs. Stewart and Vagi.

Apologies-Messrs. F. Hallgarten, D. Johnson, P. Kelly, S. McEvey, N. Quick,  
I. Watkinson and Dr. P. Williams.

Minutes of the previous General Meeting were passed on the motion  
of A. Calder and seconded by Mrs. J. Burns.

Correspondence as published in the Council Meeting minutes in the  
December issue of the Victorian Entomologist (Vol. 9 No. 6) with  
the addition of Karger Libri, Aust. Nat. Parks and I.B.M.

Treasurers Report-held over for the next meeting.

Editors Report- There is sufficient material in hand for the next  
issue of the journal.

Excursions- Detailed plans were given for the Grampians weekend  
(February 16th and 17th., 1980). It is hoped that as many members  
as possible will be able to attend.

Exhibits- Display cases were shown by D. Crosby and R. Vagi and the  
brochure of Andrew Atkins proposed book "Skipper Butterflies of  
the World".

Colour slides were shown by Joy Burns, Laurie Dunn and Dr. Owen.  
There was also an excellent colour movie on the life history of  
Delias harpalyce shown by Laurie Dunn. These members were thanked  
by the President who wished the members and visitors the compliments  
of the season and good collecting in the New Year.

At the conclusion of the meeting supper was enjoyed by all.

The next General Meeting will be held on Friday February 22nd. 1980

.....  
SUBSCRIPTIONS

As February is the beginning of the financial year, subs are  
now due.

It is regretted that with present day costs, journals will not  
be sent to unfinancial members.

A NEW LOCALITY FOR HESPERILLA CRYPARGYRA LESOUEFI.  
(Lepidoptera : Hesperidae)

By D.F.Crosby.

This interesting and local Skipper butterfly has a most restricted distribution so far recorded in Victoria.

Originally the subspecies lesouefi was described by Tindale (1953) from specimens collected at Mt. William in the Grampians (central western Victoria) in 1950 and details of its life history associated with the diminutive sedge Gahnia microstachya Benth. were given.

Subsequently J.C. Le Souef discovered a colony of the subspecies in the mountains north of Briagolong, near Strtford in Gippsland. Here the foodplant was G. microstachya also. Whereas there is a fairly extensive colony extending over a distance of several kilometres on Mt. William, the colony situated on Valencia Creek near Briagolong seems to be a very restricted habitat.

On November 27th, 1977, at about 11 a.m. a small butterfly resembling this species was seen near the top of a hill about 14 km south of Licola in Gippsland (Grid Ref. YS 44.20) at an altitude of about 300 m. Shortly after another specimen was seen caught and identified as a male of this race.

Accompanied by Nigel Quick, the area just below the crest of the hill was searched and six males and one female were caught mainly flying over or near low tussocks of a grass which appeared to be G. microstachya.

A close examination of the tussocks revealed short flower spikes hidden amongst the leaves. These spikes bore a close resemblance to Gahnia heads, but the generally prostrate habit of the yellow-green leaves tended to indicate that the plants were not G. microstachya. However, old larval shelters were found on some plants after careful examination, thus confirming that they were the foodplants. Nigel Quick found an egg which he felt belonged to the butterfly and later in the day a freshly emerged female was found on one of the plants.

A further visit to the hill on December 17th, 1977, yielded three more males, all rather worn.

This new locality, which is situated about 27 km west of Valencia Creek colony, indicates that the butterfly is probably more widespread than hitherto expected, although it is in the same general area and the habitat is similar.

Samples of the rather unusual foodplant from the new location were submitted to the National herbarium where they were positively identified as Gahnia microstachya.

References :

Tindale, N.B. (1953) "New Rhopalocera, and a list of species from the Grampian Mountains, Western Victoria.)

Rec.S.Aust.Mus.XI (1) 43-68.

Le Souef, J.C. (1956) "Intermediate Locality for Victorian Butterfly")  
Vic.Nat. 73, 124.

Common, I.F.B. & Waterhouse, D.F. (1972) "Butterflies of Australia." 125.

VALE LLEW GOODING.

On Saturday 12th. January 1980, the death occurred of Charles George Llewelyn Gooding at the Warragul Hospital. Although he was able to enjoy the Christmas season with his family, he suffered a stroke early in January from which he did not recover.

So drew to a close the life of one of our really dedicated collectors who spent all his spare time over some seventy years in building up the immense "Gooding Collection" referred to recently in this journal, (Vic.Ent.9(5):48,49).

We should be grateful that he lived to receive the decoration of Member of the British Empire in the New Years Honours for his services to entomology and for his having seen his collection safely housed with the A.N.I.C.

One feels that perhaps without his collection and his setting boards and with the prospect of spending the rest of his days in a retirement unit, there was really little left for Llew to live for. Sad as his passing is for those close to him, at least his illness did not linger on to a slow decline as has happened to other entomologists who passed their eighty year mark.

Our sympathy goes to his wife, Hilda and daughter, Margaret Coulson and family.

J.C.Le S.

# A Northern Territory-Western Australia Safari.

by K.L.Dunn

During the August/September school break in 1979, the author attended a 25 day high school coach camping tour. It covered a wide area of the western half of the continent and included such well known regions as 'The Centre' and 'The Top End' as well as many localities in Western Australia.

The tour began early on the 16th August, but due to a mechanical breakdown after only travelling for half an hour, the coach was forced to stop for repairs for six hours! We later proceeded along the Calder Highway through Charlton, Sealake and Mildura, then on to Renmark, South Australia where the camp was set up for what was left of the night.

After leaving Renmark, we passed through Morgan, Burra, Peterborough, Port Augusta and camped at the 'red dust town' of Pimba near Woomera. Pimba, which is flat and treeless in all directions, had been transformed into a carpet of thick red mud from the abnormal amount of rain it had just received.

The following morning was bright and sunny and after a short break at Lake Hart and Kingoonya, the tour pressed on north to the dry and dusty oval town of Coober Pedy. After a short look at the Opal Cave and the town, we travelled all night to arrive at Alice Springs in the Northern Territory at 7 A.M.

The morning was spent collecting round Heavitree Gap which proved very successful. It was interesting to note that Pieris rapae is apparently adapting to the more arid areas of Australia as a couple of specimens were flying here. The trees in this region provided very little shade and by midday it became too hot to collect and about this time the butterflies seemed to rest.

We set off very early next morning and headed north with brief stops for refreshments (and collecting) at Tea Tree, Central Mount Stuart, Barrow Creek, Devil's Marbles, Tennant Creek, Three Ways and finally arrived at Mataranka about 11 P.M.

The thermal pools at Mataranka Homestead, one of the main attractions of the district, remain at a constant temperature of 33 c the year round. They are surrounded by an oasis of rain forest abundant in wildlife, including wallabies and Johnstone's freshwater crocodiles which could be seen along the banks of the thermally heated creek. In the rain forest several Eurema species as well as a few Hesperia were taken but no Lycenids were seen. Delias argentifrons was not found in the rain forest but apparently prefer to fly in the open timbered country which surrounds the oasis. Ypthima arcton was common but it was not seen to fly until mid afternoon when it suddenly appeared in large numbers.

The greatest variety of species occurred at Lumaroo Beach, Darwin. These included the spectacular Oethosia pentisilia which, like most other related species, proved very difficult to capture. It especially chose to fly amongst the thick undergrowth. A search was made for Virachola smilis but they were not to be found.



December 1979

Victorian Entomologist

The tour left Darwin and headed south to Katherine and then west to Timber Creek and the Victoria River. It was extremely barren and dry and apart from the large termite mounds, little insect life was to be found.

Just over the western Australia border in Lake Argyle, Australia's largest man-made lake. It was developed only recently on the Ord River and is one of the few examples where man's interference with nature has actually been of some benefit. The vegetation of Lake Argyle, which consisted mainly of open woodlands and some tropical grassland areas, supported a large variety of butterfly species from most families. Catopsilia pomona was extremely common and about midday when most butterfly activity ceased, any disturbance of the bushes where they were resting resulted in a number flying to rest again nearby. Immense numbers of Hypocysta adiantae antirius were to be found flying in the shady grassed areas, especially round the bases of trees. The only hesperid species taken here was fortunately one of the rarer ones Hesperilla sexguttata sela.

Further west at Geike Gorge several ova, larvae and pupae of Euploea core were seen on a native food plant, a species of vine. Only a few specimens of this vine could be found. At Broome more larvae and eggs were found on Merium sp. (Oleander). All larvae taken here died of a viral disease.

Down the west coast very little was taken. After passing through Port Hedland, the tour headed inland to the Hamersley Range. After visiting the Wittenoom Gorge, the asbestos mines and the spectacular Red Gorge, we travelled through the iron ore town of Mt. Tom Price and then headed back towards the coast.

About 100 km east of Nanutarra, a loud bang brought the coach to a stop, our first blow out. A. I watched the wheel being changed a large grey coloured Lycaenid flew past and landed on a small wattle nearby. It turned out to be Jalmenus elementi, restricted to this part of the west. A couple more were flying around the foliage of the foodplant, Acacia inaequilatera. It's leaves appear to be well eaten in places. Being a coach tour, time was very limited and as soon as the wheel was fitted we were back on the road to Carnarvon and as a result no time was available to search for its early stages.

At Nanutarra a further search was made for more Jalmenus elementi but this was unsuccessful. The foodplant was growing profusely and from the distance resembled tea tree. Females of Nacaduba biocellata were taken flying round these wattles here.

The remainder of the trip to Perth was unproductive as the weather was wet and cold. The tour concluded with a flight from Perth to Melbourne during the early hours of 9th September, 1979.

Of the total of 43 species taken on this N.T./W.A. safari, The list that follows includes a range extension of species recorded in Waterhouse and Common :

Family HesperIIDae

*nes erilla sexguttata* sela

Lake Argyle.

*Cepherea trichopepla*

Mataranka, Darwin, Broome.

Family Pieridae

*Catopsilia pyranthe* crokera

Alice Springs.

*Catopsilia pomona* pomona

Tea tree, Darwin, Lake Argyle.

*Eurema helia*

Devil's Marbles, Mataranka, Lake Argyle.

*Delias argenthona* fragalactea

Mataranka, Darwin, Lake Argyle.

*Pieris rapae*

Alice Springs, Peterborough, SA.

Family Nymphalidae

*Danaus plexipus*

Kunururra.

Family Lycaenidae

*Jalmenus eurenti*

Approx. 100 km east of Kunururra WA.

*Prosotas dubiosa* dubiosa

Darwin, Lake Argyle.

*Zizeeria talsus*

Devil's Marbles.

References-

- Common, I.F.B. & Waterhouse D.F. (1972) - Butterflies of Australia (Angus & Robertson, Brisbane.)
- Le Souef, J.C. - Winter collecting in the Northern Territory, Victorian Naturalist, Vol. 88, No. 12, December, 1971.
- Olive, John, Notes on the Life History of *Jalmenus eurenti* Druce (Lepidoptera Lycaenidae) Australian Entomological Magazine, Vol. 4, Pt. 6, April 1978.
- CSIRO Div. of Tropical Crops and Pastures, Kimberley Research Stat. Visitors information.

Acknowledgements

I wish to thank Mr & Mrs. Le Souef for valuable information on various species and localities in the Northern Territory and Mr. & Mrs. A.C. Manskie for the loan of collecting material. I would also like to thank the coach driver and teaching staff of Danienong High School for their special co-operation and assistance.

A Note on a Collecting Trip to the Grampians.R.C. and N. Manskie

The Grampians in western Victoria provides some very interesting collecting areas. On Melbourne Cup weekend, 3rd - 6th. November, 1979 in the company of our friends and fellow collectors Mary and "Zoo" Le Souef, we again sought out many of these particular spots. As the Le Souefs had come in from Kiata via Horsham they checked the Zumstiens area for Jalmenus icilius eggs, larvae or pupae but none were to be found.

Although there was not a great deal about, hilltopping at Heid's Lookout met with some success, netting Pseudalmenus chlorinda fisheri with one pupa taken at McKenzie's Falls as well. Along the pipeline near Bellfields larvae and pupae of Hesperilla chaostola and Oreisplanus peronatus were taken.

On Mt. William larvae of Hesperilla cryodaryra lesouefi were plentiful and there were a few pupae as well. It was of interest to note the vast numbers of Anaphaeis java teutonia, which appeared to be a Japer white migratory flight flying west. These butterflies were to be seen in great numbers each day we were there.

An unexpected capture was that of Argynnis cyrila on the Victoria Valley Road with 5 adults being netted.

Weather conditions varied from very hot to stormy windy days but our trip has again proven that Victoria's Grampians yield many species of butterflies.

REPORT ON THE EXCURSION TO BUATON

On Sunday, October 21st, 1979, 23 members and friends met at the Acheron River at Suxton, Victoria. The weather was fine and warm, ideal for collecting.

Although the land adjoining the river has been subdivided and in many instances homes built and occupied, it is quite evident that the foodplants required for the species of beetles, moths and butterflies, being sought, have not been adversely affected. Acacia melanoxylon (blackwood) and Allocasuarina viminialis are dotted along the river bank. Pupae of Pseudalmenus chlorinda zephyrus were found under the bark on these trees. Other foodplants in the area include Acacia dealbata, Bursaria spinosa (blackthorn), gahnia and lomanara.

List of butterfly species recorded from this excursion;

Family PieridaeEurema smilax - adultDelias harpalycce - adultFamily LycaenidaePseudalmenus chlorinda zephyrus -- pupae and adult.Zizina otis lauracus - adult.Camalides hyacinthus hyacinthinus - adult.Nola Manskie

3, Compton Street,  
Butleigh,  
Glastonbury,  
Somerset.

Dear

I am researching for a publication entitled "Skipper Butterflies of the World". Would it be possible to provide me with any of your published reprints, especially those concerning HesperIIDae?

The data most useful to me would be:-

Biological notes (including foodplant records, season, time, attitude at rest, life history, distribution etc.)

Taxonomy (location of holotype, morphology of eggs, larvae, pupae and adults, including wing venation and genitalia.

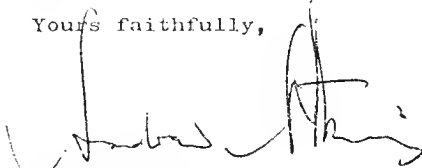
Bibliography.

I include a pre-publication brochure showing the probable format of this book which will hopefully include illustrations of every known species of skipper and a brief, but accurate, text for each.

It is anticipated that the work will take 2 years to complete and part of this time will be spent in field trips to various countries and visiting collections to photograph holotypes.

I should be grateful for any help that you may be able to give me.

Yours faithfully,



Andrew Atkins

Book Review

A Monograph of the Birdwing Butterflies. J. Haugum F.R.E.S. & A.M. Low, F.R.E.S. with photograph colour plates by David Wilson F.R.E.S. edited by M. Page General editor G. Trebilcock F.R.E.S.

This is a very welcome publication because, until the last few years we, as amateur collectors, have not had at our disposal concise literature on the Birdwings, the largest and the most beautiful butterflies in the world.

Because they are part of the fauna of the Australian region and extend northwards and to the west of New Guinea they are of great interest to the Australian collector,

Until Bernard D'Abbrera's book The Butterflies of the Australian Region appeared a few years ago, one had to go to the museum to find the names of New Guinea butterflies. Even collectors were uninformed about these beautiful Birdwings that fly in northern Australia, New Guinea and adjacent islands. Indeed, many collectors will never be able to afford to buy or collect them for their own private collections because they are often rare and many now are on the protected fauna list. They are now the Rembrants of the butterfly world to have copies taken for books and pictures in magazines.

The Monograph of the Birdwing Butterflies is the result of many years of detailed research and includes a great deal of material published for the first time. There is also much data from various collectors and expeditions with whom the authors have been in contact over the years. They have pursued the work like detectives with authentic information, in many cases correcting doubtful life histories, nomenclature and taxonomy. It is the accumulation of research and effort covering more than a hundred years.

The work is made up of two volumes and six parts. Volume one covers Ornithoptera and Volume two, Trogonoptera, Ripponia and Troides. No doubt it will be a text book guide to specialists and collectors alike for many years to come.

As a general collector, I find it a wonderful and valuable addition to my library and I cannot help but marvel when I see these Birdwings of the beauty and inventiveness of creation.

D.R. Holmes.

.....

ON THE GRAPEVINE.

Mark Hunting is continuing his checking up on the Gippsland butterfly fauna, a list of which will appear in the next Journal.

Gordon and Joy Burns with Chuck Bollamy, a young American enthusiast in tow, set off for central Queensland recently resulting in a session in hospital for Gordon and very few specimens to show for the trip.

Kelvyn Dunn had a successful trip to the Crampians during the holidays.

## REPORT ON LABERTOUCHE EXCURSION, DECEMBER 2nd. 1979

By Peter Carwardine

The Ministry for Conservation are making a survey of the Westernport Watershed area and several members of the Society together with a few friends took part in an excursion to gather some data from the Labertouche area.

The weather although fine, was quite overcast and not quite warm enough to bring out many insects, however a few Lepidoptera were on the wing and Coleoptera were plentiful.

Would members please hand in lists of their collections from the Westernport Watershed area ( from this excursion or any other time ) to the Society by October 1980 so that they can be forwarded to the Ministry.

A preliminary list from the excursion follows.

ODONATA - 2 sp.COLEOPTERACARABIDAE sp.Lamprina sp.PASSALIDAE sp.Diplocephala sp. in very large numbers.Cisnois - 2 sp.Stigmoderma vigilans, octomaculata & sexlagiataChauliognathus pulchellusMELYRIDAE sp.TENEBRIONIDAE sp.ALLECUIDAE sp.CURCULIONIDAE sp.LEPIDOPTERAHesperilla donnysa larvae & pupaeHesperilla chrysotricha cyclospila larvae & pupaeTaractocera papria maleArgynnia cyrilaTisiphone abeona adult & larvaVanessa kershawiAnthelidae sp. larvae

A follow-up excursion to the same area will take place on 2nd. March 1980. Arrangements as per page 49, October 1979

Journal, except meet 11 AM Labertouche turnoff.

ENTRECS Reference for this excursion area is YS47.

.....

ON THE GRAPEVINE (Cont.)

It was again a great pleasure to have Dr. and Mrs. Norman B. Tindale staying with us at Blairgowrie for a few days on their way to Canberra. It is indeed unfortunate that his visit did not coincide with our meeting. After arriving from California, he spent October and November on his *Geitoneura* studies in Western Australia. He is also now studying the ancient group of Castniids, the Synemons, in relation to the evolution of the Lepidoptera.

Word from Max and Barbara Moulas told of their having met with extremely dry conditions on their boat trip to the headwaters of the Jardine River on Cape York.

February, 1980

Victorian Entomologist

A Collecting Trip to North Queensland, K.L.Dunn, conclusion.P.fuscus capaneus Westw.1843.

Port Douglas-sighted.

P.ambrax egiptus Misk.1976.

Crystal Cascades, Mission Beach. Sighted.

P.ulysses joesa Butl., 1869.

Sighted at Cairns, Kuranda and Sth. Mission Beach.

Cressida cressida cressida (Fab.) 1775.

Port Douglas, Mt. Stuart, Townsville, Ellis Beach-sighted.

Castle Hill, Townsville, Sth. Mission Beach.

Pachliopta polydorus queenslandicus (Roths.) 1895.

Crystal Cascades.

Ornithoptera priamus euphorion (Gray) 1953.

Sighted at Kuranda and Mission Beach.

Family - Pieridae.Catopsilia pomona pomona (Fab.) 1775.

Cairns, Port Douglas-sighted.

Eurema brigitta australis (Wall.) 1867.

Crystal Cascades.

E.hecabe phoebus (Butl.) 1886.

Crystal Cascades, Sth. Mission Beach, Magnetic Island.

E.laeta lineata (Misk.) 1889.

Crystal Cascades.

Delias argenthona argenthona (Fab.) 1793.

Cairns, Kuranda-sighted.

D.mysis mysis (Fab.) 1775.

Kuranda, Crystal Cascades-sighted.

D.ennia nigridius Misk., 1884.

Kuranda.

D.nigrina (Fab.) 1775.

Kuranda.

D.nysa nysa (Fab.) 1775.

Mt. Spec N.P.-sighted.

Appias paulina ega (Bois.) 1836.

Crystal Cascades, Hartley's Ck., Ellis Bch. S. Mission Bch.

A.melania (Fab.) 1775.

Crystal Cascades, Mt. Spec-sighted.

February 1980

Victorian Entomologist

Janides phaseli(Math.)1889  
S.Mission Beach.

Lambides boeticus(Linn.)1767  
Cairns,Crystal Cascades.(not retained.)

Catochrysops panormus platissa(H-Sh.)1869  
Crystal Cascades,Mt.Stuart,Townsville.

Zizula hylax attenuata(Luc.)1890  
S.Mission Bch.

Zizina otis labradus(Godt.)1819  
Cairns.

Candalides absimilis(Feld.)1862  
Cairns.

Philiris innotata evinculus Wind.& Cl.1947  
Magnetic Is.

Megisba malaya nigra(Misk.)1890  
Crystal Cascades.

#### Family Hesperidae.

Allora doleschallii doleschallii(Feld.)1860  
Hartley's Ck.,n.Ellis Bch.-sighted.

Babania exclamationis(Fab.)1775  
Hartley's Ck.-sighted.

Notocrypta waigensis proserpina(Butl.)1883  
Cairns.

Telicota ancilla ancilla(H-S.)1869  
Cairns.

#### References:

Common I.F.B. and Waterhouse D.F. (1972)  
"Butterflies on Australia".



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## CONTENTS

Minutes of General Meeting, 14th December 1979.....	1
A New Locality for <i>Cryptargyria lesouefi</i> , D.F. Crosby.....	2/3
Vale Llew Goding.....	3
A Northern Territory/Western Australia Safari, K.L. Dunn..	4/6
A Note on a Collecting Trip to the Grampians, K.C. & H. Manskie.7	
Report on the Excursion to Duxton, H. Manskie.....	7
Letter requesting research material, Andrew Atkins.....	8
Book Review: A Monograph of the Larwing Butterflies.....	9
On the Cranevine.....	9/10
Report on the Labertouche Excursion, P. Carwardine.....	10
A Collecting Trip to N. Queensland, K.L. Dunn, conclusion...	11/12

-00000-

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Messrs. Joy Burns, Mary Le Souef, Messrs. Gordon Burns,  
David Crosby, Ray Manskie, Shane McEvey, Andrew Calder,  
Brian O'Neill and Ian Watkinson.

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## DAILY OF COMING EVENTS

Excursion to Grampians-February 16/17.

Friday 22nd February-General Meeting.

Sunday 2nd March-Excursion to Larbertouche.

Friday 18th April-General Meeting.

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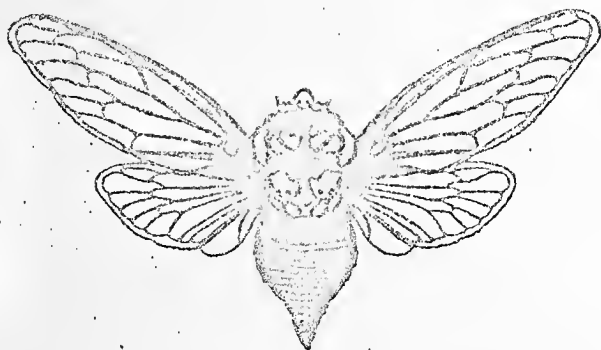
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VOL 10 NO 2



APRIL 1980

# VICTORIAN ENTOMOLOGIST



Registered for posting  
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Journal of  
The ENTOMOLOGICAL  
SOCIETY of VICTORIA

# THE ENTOMOLOGICAL SOCIETY OF VICTORIA.

## MEMBERSHIP

Any person with an interest in Entomology shall be eligible for Ordinary Membership. Members of the Society include professionals, amateur and student entomologists, all of whom receive the Society's Journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and study groups, of libraries and of University and Departmental staff.

## OBJECTIVES

The aims of the Society are:

- (a) to stimulate the scientific study and discussion of all aspects of Entomology,
- (b) to gather, disseminate and record knowledge of all Australian insect species,
- (c) to compile a comprehensive list of all identifiable Victorian insect species, and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in Entomology.

## MEETINGS

The Society's meetings are held at Clunies-Ross House, National Service Centre, 191 Royal Parade, Parkville, Victoria, at 8 P.M. on the second last Friday of even months, with the possible exception of the December meeting which may be held earlier.

Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with like interests. Forums are also conducted with short addresses by members on their particular interest so that others can participate in the discussion.

## ANNUAL SUBSCRIPTIONS

Ordinary Member	10.00 (Aust.)	approx 11.50 (U.S.)
Student, Associate Member	5.00 (Aust)	" 5.75 "
Journal posted surface mail		

No additional fee is payable. Associate Members, resident at the same address as, and being immediate relatives of an Ordinary Member do not automatically receive a copy of the Society's publications, but in all other respects rank as Ordinary Members.

## CONTRIBUTIONS TO THE "VICTORIAN ENTOMOLOGIST"

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of entomology for publication within the Journal. Contributions are not restricted to members, but should be responsible and original. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed, it would be of great assistance if they were typed on A4 (International quarto) paper, single spaced with double spacing between paragraphs, a margin on the left of 1 cm and on the right 5 mm.

ADVERTISING .Five dollars per page.

April 1980

Victorian Entomologist

Minutes of the General Meeting held at Clunies Ross House on Friday February 22nd. 1980.

The President welcomed members and visitors to the meeting which opened at 8.10.P.M.

Attendance-P. Carwardine, B. Condon, D. Crosby, L. Dunn, I. Endersley, J. Hallgarten, D. & J. Holmes, J. Hutchinson, D. Johnson, P. Kelly, J. S. Le Sueuf, K. M. Le Sueuf, R. & M. Manskie, B. O'Neill, N. Sherwin, B. Smith, C. Stahl, D. & N. Stewart and R. Vagi.

Apologies-V. Barrett, G. & J. Burns, L. Dunn, J. McEvey, N. Quick and I. Watkinson,

Minutes-The minutes of the previous General Meeting were passed on the motion of D. Crosby and seconded by M. Le Sueuf.

Correspondence was received from : Chaucer's Reception and Convention Centre, Aust. Ent. Soc., Mrs. Margaret Coulson, 2nd. World Wilderness Congress, Ent. Soc. of Aust., (N.S.W.), The Convention, J. B. Vernon and M. Malipatal.

Treasurers Report. The Treasurer reported that there is a Credit of \$963.84 in the General Account and \$251.34 in the Publications Account, making a total of \$1215.18. There were 57 financial members for 1979. Members are reminded that fees are now due !

Editors Report- There is sufficient material on hand for the next journal.

Excursions-A report was given on the results of collecting at the Grampians. It appears that it was an interesting and enjoyable trip. March 2nd., 1980, is again to Labertouche, a follow up on the earlier excursion. P. Carwardine thanked members for the interest shown in the different excursions during 1979/80, appealing to members for information regarding future excursions.

Exhibits-K. Dunn with a series of butterflies collected in the Grampians (1980). Miss Coral Stahl showed two of her watercolours of butterflies to be exhibited in the Rosebud Easter Art Fair, very much admired by members.

Entrees-Sheets for recordings of unusual butterfly sightings during 1979/79 were tabled and members asked to complete if they had not already done so.

General Business-"Zoo" Le Sueuf reported on his initial drive for new members to the Society. Members are requested to note that the 11th Meeting will be held on Friday the 11th., not as previously published.

The Guest Speaker for the evening was Jim Hutchinson who gave a most interesting report on butterflies and particularly dragonflies and damselflies from the Daly River and East Alligator River areas of the Northern Territory. He accompanied his address with coloured slides giving an informative picture of the areas where his research took place. P. Kelly thanked him on behalf of members, inviting him to give a further talk on aspects of entomology in the "Top End".

The meeting closed at 9.40 P.M.

Minutes of Council Meeting held at Clunies Ross House on  
Friday 21st. March 1980.

President David Stewart chaired the meeting which opened at 8 P.M.

Apologies were received from N. Manskie, D. Crosby & S. McEvey.

Minutes of the previous Council Meeting held on Friday 23rd. November, 1979, were passed on the motion of R. Manskie, seconded by A. Calder.

Correspondence as published in the Minutes of the General Meeting in this issue of the Journal. In addition there were Ecos, Ian Clunies Ross Foundation, Ent. Soc. Q. Bulletin, Aust. Ent. Soc. News bulletin. Received on the motion of "Z" Le Souef, seconded by Gordon Burns.

Treasurer's Report- There is a credit balance of \$1052. 12 in the Cheque Account and \$ 251 34 in the Publications account. Acceptance moved Bob Condron, seconded by Gordon Burns.

Editors Report- He asked that some thought be given to the publication of monthly Entrees maps showing localities where collecting had taken place during that period. In this way distribution records could be extended by visits to those areas where no collecting had been done.

Excursions- Peter Carwardine suggested that there should at least be one indoor excursion during the winter period. Approaches were to be made to suitable institutions.

Public Relations- "Z" Le Souef reported on his enquiries through several branches of the Education Department with a view of fostering the interest of teachers and children in entomology. Initially there was much enthusiasm but a scheme of this magnitude would take quite some time to bring to fruition.

General Business- The matter of a more efficient editorial typewriter was again raised. After some discussion, it was moved by Brian O'Neill and seconded by Ray Manskie, that Peter Carwardine be asked to make enquiries as to the cost of a suitable reconditioned machine.

Concern was expressed on a report that all Buprestids were now protected in West Australia. It is now necessary to apply to the authorities for a permit to collect them.

Referring to the letter from the Ian Clunies Ross Foundation concerning the radio station 3kdt, it was decided that David Crosby be asked to make some enquiries from the Foundation as to its costs and benefits to the Society.

The meeting closed at 9.35 P.M..

The next Council Meeting will be held on Friday May 23rd, 1980

April 1980

Victorian Entomologist

GRAMPIANS EXCURSION REPORT.

By D.F.Crosby.

This Society excursion was held on the weekend February 16th. and 17th., 1980.

With the promise of good weather, Mr. and Mrs. Le Souef, Mr. and Mrs. Manskie and Mr. and Mrs. Stewart (and family) arrived at the "base" caravan park in Halls Gap on Friday, 16th. to do some early collecting, particularly round the lights at night. Next day Mr. and Mrs. Crosby, Lauri and Kolwyn Dunn and Ray Vargi arrived.

To cover as much country as possible different groups visited the more promising localities separately, discussing results and pinning captures at the caravan park on Saturday evening.

Despite reasonable collecting weather, the bush was very dry, with little in the way of blossom to attract beetles, etc. Unfortunately this appeared to have an adverse effect on our results, which may be summarised as follows :

Butterflies

1. Baroka Lookout Road (at a point about 4km before the lookout)  
Anisynta monticolae-males and females,  
Dispar compacta.
2. Reed's Lookout (at the top)  
Delias aganippe, Dispar compacta, Taractrocera p. papyria, Hesperilla idothea clara (male) Candalides h. hyacinthinus (male, very worn) Neolucia agricola (v. worn) Signeta flammeata (male)
3. Delley's Dell. (lower end and track 100 m below)  
Delias harpalyce (3 males) Heteronympha solandri angela (male and female), H. penelope maraia (male) S. flammeata (male), G.a. acantha (larva).
4. Silverband Creek Reserve. G.a. acantha, G.k. klugii, H.p. maraia (male and female) Orixenica lathoniella herceus (1 male), Z. otis labradus.
5. Mt. Rosea. (a) (lower track) Vanessa itea, Heteronympha m. merope (female) Tisiphone abeona antoni, G.k. klugii.  
(b) (near summit) A. monticolae, H.s. angela Candalides acastus (male) C.h. hyacinthinus.
6. Mt. William (a) (turntable) A. monticolae (common) Hesperilla carysargyra lesouefi (several) H.s. angela.  
(b) (summit) H.s. angela, G.k. klugii, Pieris rapae, H.i. clara (male) N. agricola (v. worn) C.h. hyacinthinus (v. worn), Z. otis labradus.
7. Hall's Gap. P. rapae, H.p. maraia, H.m. merope, T.a. antoni, D. compacta, S. flammeata.
8. Ryan's Lake Neolucia biocellata

Grampians Excursion cont.Moths.

A number of interesting moths were taken at the town lights. These included:

*Abantiades magnificus*, *A. hyalinatus*, *A. latipennis*,  
*Periscepta australis*,  
*Diggleia australasiae*, *D. rufescens*.  
*Xyleutes*-two species.  
*Limacodidae* (cup moth)-one sp.  
*Osirrhina albigutta*, *Neola semiaurata*, *Crypsiphona occultaria*.

Beetles.

Several longicorns were taken at the town lights while more were collected by David Stewart further afield with the M.V. light in search of specimens infested with mites. These included as yet unidentified *Carabs*, weevils and *Rutelidae*.

Despite much tea tree in flower and considerable searching none of the anticipated *Stigmocera* were seen. However an interesting *Duprestid* was taken on a shrub on the summit of Reed's Lookout, on the foliage. With such extremely limited literature on the subject, its identification will have to await a museum study. Several Robber Flies were collected.

On their return home, the Le Souef's called at Mt. Cole and noted *H.p. maraia* and *H.s. angela* near the picnic ground.

Although not very productive of specimens, the excursion was most enjoyable and our thanks go to Peter Carwarine for the necessary organisation.

.....

IMPORTANT NOTICE !

THE NEXT GENERAL MEETING WILL BE HELD

ON 11TH. APRIL.



GENERAL INDEX  
WINGS AND WINGS-VICTORIAN ENTOMOLOGIST  
August 1960 to February 1960  
(E. & G. E.)

- Abnormal appearances-4(2):24,30a,4(4):47-48,4(5):56-71  
 Ants-Formicidae-4(5):58  
 Arachnids-W/S-6(1):2  
 Atkins, Andrew-4(1):9-14,5(4):131-138,4(6):78,79,6(2):13-14,6(5):34-38  
 7(1):3,8(1):7,8(3):25-29,9(6):60-64,10(1):8  
 Attractants-W/S-8(3):3,M/V Lamps-4(1):8  
 Advertising-casual-3(5):21  
 Aquatic insects-9(3):23-26  
 Barnes, John, (Jack), W/S-1(1):16, W/S(2):13,15,21-23, W/S(7):2-3, W/S(10):2  
 W/S(12):2-3, Resigned, 7(5):53-Obituary.  
 Barrett, Charles-3(5):7 (Plate)  
 Beattie-Jac-3(4):6-10,3(5):6-8  
 Bees, Social-W/S(13):2-4,5(1):88-90  
 Beetles(Coleoptera)-W/S(1):1-9, W/S(2):3,4,3(1):8,4(5):59,6(2):17-20  
 9(2):14  
 Apple-W/S(2):23, W/S(3):2,---1(1):20  
 Foreign-1(1):16,  
 Culls-3(2):17,2(4):16  
 Borestidae-W/S(1):10,6(2):17-20,6(3):25,26,7(1):67,7(6):71,9(2):42  
 Paropsis-9(1):6-6  
 Longicorns-W/S(5):1-3, W/S(8):2-3  
 Publications-7(6):72-73  
 Bell, Ray-W/S(2):19  
 Burt, J. S. (Obit)-8(1):4  
 Besserdin, Ray-1(1):6-7,2(4):11-12,2(5):14-15,3(4):12-16  
 Bishop, A. D. (Tony)-3(2):7-15,2(3):4-5  
 Botany-2(2):9-15  
 Breeding-4(1):6-7,3(2):7-15(Plate)  
 Brou-V. A.-3(5):10  
 Brooks, George-Obit-5(6):152  
 Brown, Alec, W/S(3):25  
 Bug-4(3):39  
 Burns, A. H. (Alec)-3(5):7(Plate)  
 Burns, C. C. (Cordon)-6(2):17-20, (Joy) 7(6):65,8(5):30,9(2):14,9(6):64  
 Burrows-Paraffin wax for-6(1):2-5  
 Butterflies-Victorian-  
 Hesperiliidae-W/S(4):4, W/S(6):3-4, W/S(11):1-5, W/S(14):2-3  
 3(1):8,1(1):4,23,1(2):13-14,2(2):5-7-8,3(2):7-15,5(2):98,2(3):4-7  
 3(3):4-6,2(4):8-10,2(5):10-13,4(5):60-61,65-65,2(6):6-7,5(2):11-16  
 6(5):34,38,7(1):8,7(2):13,7(4):45,8(2):10,10(1):2-3 98  
 Papilio-W/S(2):23,3(4):4, W/S(11):4, W/S(1):23,25,1(2):13-14,5(2)/  
 3(4):8,11,3(5):15-18,4(6):78-79,7(4):45,7(5):63  
 Pieridae-W/S(4):4, W/S(11):1-5,---1(1):10,23,25,4(1):6,3(1):3,  
 1(2):13-14,2(2):5-7,3(2):11-15,2(5):4-5,3(3):4-6,2(4):8-10,  
 3(5):5-6,17,20,4(6):79,6(2):11,12,15,15,6(3):24,7(1):1  
 Nymphalidae-W/S(2):25, W/S(4):4, W/S(11):1-5, W/S(14):2-3,---  
 1(1):5,21,23,25,3(1):8,1(2):13-14,2(2):5-7,3(2):11-15,4(2):24,  
 3(3):4-6,4(3):37,2(3):4-5,8,5(2):98,2(4):10,19-21,3(4):4,3(5):8,17  
 2(6):6-7,4(5):65-65,4(6):78-79,6(2):11-16,6(3):24,6(5):38,7(2):14,  
 15-17,7(4):38,43,45.  
 Lycaenidae-W/S(4):4, W/S(11):2-3,---1(1):5,21,2(1):5-8,4(1):1,4,  
 1(2):14,2(2):5-7,4(2):23-24,5(2):98,3(4):5,4(4):48-52,3(5):15-18  
 4(5):60,61,---65,3(6):5-6,4(6):78,6(2):11-16,6(3):24,6(5):34-38,  
 6(6):43-4,7(1):6,7(2):12,15,7(3):26,7(4):38,45,7(6):7475,8(1):5-7  
 General-W/S(1):4-8,21,25, W/S(2):19, W/S(14):2-3,---3(1):7-8,1(2):12  
 2(2):5-7,3(2):5-6,15,5(2):98,5(3):11,2(3):5-7,3(3):4-6,6(3):117-25  
 2(4):19-21,2(5):10-13,4(5):58,2(6):6,5(6):152,6(2):11,6(3):24  
 9(2):12

Butterflies-Not Victorian -

- Queensland-W/S-(1):22-24, 7/3(2):8-9, 25-26, -1(1):8-10, 2(1):11-12, 9-11, 4(1):9-14, 5(2):4, 5(2):99-101, 4(2):23-24, 3(3):9-10, 4(4):47-62, 5(4):131-137, 5(5):144-149, 4(6):76-78, 2(6):8-13, 7(3):30-31, 7(5):59-62, 9(4):44, 9(3):28-29, 9(2):16-19, 9(5)56  
 N.S.W.-W/S(4):4---5(5):16, 6(3):48 10(1):11-12  
 S.A.-4(3):34-37, 5(5):153, 6(6):13, 44  
 Nthn Terr.-3(5):11-14, 8(2):18-19, 10(1):4-6  
 New Guinea-8(2):12-14, 7(3):22-25, 6(4):36-38  
 W.A.-W/S-(11):1-5, --8(3):28-29  
 Flinders Is.-1(3):4-5  
 Java-4(6):80-82  
 Jamberwell Beauty-4(1):16  
 Tasmania-8(3):30  
 Currawang-Peter-5(3):116, 10(1):10,  
 Chemicals-Insect-W/S(4):2-4  
 Cleaning stains-3(3):13,  
 Cooktown-3(5):51-53  
 Climatic conditions-W/S(2):6-7  
 Collecting lamps-3(5):9, Poor collecting-9(2):15  
 Couchman, L.E. & R.-8(6):50  
 Control Burning-W/S(2):8-11, -----4(2):25-26  
 Constitution-1(1):11-15, 1(2):15-19, 3(3):3, 4(3):31-32, 4(4):52a-52b  
 4(5):53-54, 4(6):72-73, 7(3)18, 7(4):41, 8(1):1  
 Conservation-4(1):1, (3):110-114, 3(4):5-7, 5(3):23-24  
 Condron-R.(Bob)-W/S-(8):3, ----1(1):21, 4(3):57  
 Crosby, David R.-1(1):4, 3(2):5-6, 5(2):98, 2(3):5-7, 5(3):117-125,  
 2(4):12-15, 4(5):56-59, 6(2)-68, 5(6):152-157, 6(2):15-16, 6(3):23-24  
 8(5):56-59, 9(6):63-68, 10(1):2-5  
 Cruel plant-W/S(2):14  
 Crozier-R.M.-W/S(1):23  
 Customs regulations-4(1):2, 4(3):32, 5(6):154-157  
 Diary-keeping-5(3):144  
 Dragon Flies-Odonata-3(3):7, 5(2):104, -107, 7(6):69-71  
 Dunn-Kelvyn-7(3):30-31, 8(5):48, 9(4):44, 9(3):28-9, 9(5):56, 10(1):4-6  
 Ecological survey-3(1):7 10(1):11-12  
 Entrees-5(4):137-140, 7(2):10, 12, 7(4):38, 49, 7(5):51, 7(6):64, 10(1):11-12  
 Entomologists-interstate-3(5):4-6 9(3):68-68, 8(2):14  
 Exhibition-Junior-5(4):130, 7(5):51, --Jubilee-7(3):16  
 Excursions-W/S(2):21---4(1):3, 2(2):5-7, 3(2):5-7, 13-15, 4(2):30b  
 5(2):58, 3(3):116, 2(4):22, 3(4):45, 5(4):129, 3(5):5-6, 19,  
 2(6):6-7, 14-20, 5(6):151-152, 6(2):11-12, 6(3):24, 6(5):37, 6(6)44  
 8(3):24, 8(4):35, 8(5):47, 49, 8(6):63, 9(2):20, 9(1):4, 9(3):69, 10(1)10  
 Exoneura (Bees)-5(1):88-90  
 Elections-7(3):25, 7(4):39, 8(4):32, 33  
 Fisher, R.H.(Bob)-4(3):34-37, 7(3):22-25, 7(5):54-58, 8(2):12-14,  
 Flies-W/S-(10):2-4, W/S(12):2-3 8(4):36-38  
 Formicidae-(ants)4(5):58  
 Fossil insects-W/S(3):1  
 Fenselau-I.C.-7(5):62  
 Field-Ross and Julie-8(1):5-7, 8(4):35, 9(3):27  
 Gall insects-2(4):16-18, 3(2):17  
 Gooding, C.O.L.(Llew)-2(4):19-21, 2(5):10-13, 9(5):48-49, 10(1):3, Obit.  
 Grasshoppers-4(2):38-39  
 Grimwapping-4(4):48-52, 2(5):8-9  
 Glow-worms-8(5):56-59  
 Hall, A., W/S(6):2  
 Hallgarton-Fred-W/S(2):3  
 Hansen-Francis-R., W/S(1):11  
 Hemiptera-5(6):7  
 Herbarium-4(4):48  
 Hilltopping-5(4):131-135

History-W/S(3):37,W/S(3):3--3(4):6-10,3(3):3-8  
 Holbery, P.4(3):36-39  
 Holmes, D.K. (Dave)-W/S(2):14,W/S(4):2-4---1(1):8-9,20,10(1):9  
 Hutchinson-J.F. (Jim)-3(1):8,2(2):9-15,4(2):21-22,5(2):104-107,  
     2(3):8,3(3):7-8,3(5):5-6,11-14,7(6):69-71,76,8(2):15-19,  
 Hymenoptera-1(1):6-7,5(1):88-90,3(4):12-16,4(5):58.  
 Index-2(6):24-29,4(6):86,5(1):91-92,Vol 5-6(1):7  
 Insects as food-W/S(9):2-3,---3(4):10-11  
     "    aquatic-6(3):23-26  
 Isoptera-1(1):11-16  
 Journal-records-5(5):144-44- New Format-9(1):2  
 Jubilee dinner- 7(3):20-25  
 Kelly, Peter-2(4):16-18  
 Kinsella-Andrew-7(4):45-48  
 Lacewings-Neuroptera-5(2):162-163  
 Lights-lamps-3(3):9,8(3):30  
 Le Souef, J.C. ("Zoo")-W/S(2):8-9,W/S(9)2,W/S(11):1-5---1(1):8-10  
     1(1):22-24,5(2):99-101,2(4):22,3(4):11,3(5):4-6,5(5):144-148  
     2(6):6-7,6(3):25-26,6(4):32-33,7(4):34-38,7(5):53,7(6):74-75  
     8(5):50,9(2):16-19,9(3):51-53,10(1):3  
 Library-4(2):21-22  
 Literature-2(4):13-15,3(5):19,2(6):21-23,3(6):6,6(1):4-6,8(5):51  
 Longicorn beetles-W/S(5):1-3,W/S(8):2-3  
 Leaf miner, oak-7(4):43,8(4):30-41  
 Malcolm, Helen-4(3):39,  
 Manskie, Ray and Nola, 2(3):17-23,5(2):113,7(2):12,10(1):7.  
 McCaunce-Norman, Obit-3(2):16 4(2):35-29,5(6):7  
 McCubbin, Charles-W/S(6):3-4,W/S(14):2-3-----2(1):9-11,2(2):7-8  
 McEvey-J.F. (Shane)-2(3):8,3(3):4-7,3(5):5-6,7(5):59-62,9(2):12  
 Membership list-2(5):5-7,4(3):32,6(6):45-52,6(6):60-63,  
 Migration-W/S(9):5,W/S(3):3-8  
 Mistletoe-4(4):46-52,  
 Morton-D.E.A. (Tony)1(2):12-14,6(4):80-82,2(5):16  
 Museum, National-2(4):8-10,7(3):21  
 Moths-W/S(3):1,-----1(1):23,1(1):5,3(1):8,4(6):82-83,6(3):24,  
 Mules-M.W. (Bill)-3(5):7 Plate,7(4):38 6(2):12  
 Malibatil M. (Mali)6(3):23-26,  
 Miller-Dr. Grant-6(5):34,  
 Moulds, Max and Barbara-7(1):4,8(3):24  
 Monteith, Geoff and Jybil-7(1):4  
 Neboids, Dr. Arturo-2(4):8-10,3(1):7, 9(4):39-41,9(3):30  
 New, Dr. Tim,5(2): 102-102,5(4):136,7(6):66-68,6(4):39-41,8(5):51,  
 Neuroptera-5(2):102-103.  
 National parks-7(4):44  
 Obituaries-McCaunce-2(2):16, Brooks-5(6):152,C. Wyatt-6(4):32-53,  
     Chisholm, A.H.-7(5):53, Barnes, John,-7(5):53, Burt, J.W.8(1):4,  
     Harris, Ted., 3(1):8, Gooding, Llew.-10(1):3,  
 Odonata-5(2):104-107,3(3):7,  
 Ozols-J.-W.S.(1):17  
 Ogyris-9(2):16-19  
 Parasites-Wasps-5(4):136,  
 Psocids-Biology of-7(8):66-68,  
 Peru-Collector-3(4):139-140  
 Perry, N.K.-W/S(2):10  
 Pest control-9(3):30  
 Phasmid spraying-3(6):4  
 Platyaspidae-bugs-4(3):39  
 Preparation-2(3):11-12  
 Protection-4(1):1,4-5,4(2):19,5(3):110-114,4(6):77,  
 Pins-prickly pear-1(1):20  
 Publications list-1(2):5,2(1):3,2(4):13-15,3(5):19,3(6):6  
 Public relations-4(2):22,  
 Predators-W/S(2):14,W/S(7):2-3  
 Peters-John-7(1):4

April 1980

Victorian Entomologist

Presidential Address-W/S(9):2-5,----6(4):29,7(4):34-38,8(4):39-41  
 9(4):29-41  
 Quick-Nigel B.-S(1):6-8,3(1):9-12,4(1):6-7,2(1):5-6,2(2):7-8,  
 3(2):7-15,4(2):23-24,2(3):9-12,5(3):110-114,4(4):48-52,  
 5(4):143-141,4(5):66-71,5(5):60-61,4(6):79,8(1):4-6,6(4):30-31  
 6(5):38,7(3):11-30,7(3):28-29,7(4):3,9(1):8  
 Relaxing-W/S-(1):1-2-----3(5):10,6(4):30-31  
 Rushworth,Graham-W/S (2):5-7,W/S (2):22-24,W/S (4):4,W/S (6):1  
 Reviews Book-S(6):21-23,4(6):82-83,6(1):4-6,8(3):24,8(5):50,  
 9(3):27,10(1):9  
 Salinitri,V.S(1):2-5  
 Settling-4(6):73  
 Schwartz,Michael,3(3):8,  
 Shunke,2(4):138-140  
 Stains-Cleaning-3(3):10  
 Stigmodera-W/S-(1):1-10  
 Smith,Dr.Brian-2(5):8-9  
 Smith,1(1):20  
 Subscriptions-9(1):3,  
 Turley,C.,4(4):47-48  
 Tindale,Dr.Norman B.7(1):4,7(4):43  
 Upton,Murray-3(3):9  
 Wasps-W/S (3):1,W/S (13):2-4-----3(2):17,2(4):11-12,5(4):136  
 " Birex-1(1):17-19  
 Wainer,J.A.-9(4):42-43  
 Walter,Bue,3(3):9-10.  
 Wild,Clyde-(1):9 (W/S)  
 Williams-Peter,W/S (5):1-5,(8):2-3  
 Wilson,F.M.(Hus) 3(5): 7 Plate  
 Wyatt,Colin,Obit.6(4):32-33

.....

Although these entries have been checked,there are sure to be some discrepancies.

Wings and Stings entries are preceded by W/S with all others from Victorian Entomologist.

Entries thus: 4-Volume,(6) Part No.,:82-Page Number.  
 4 (6) : 82

A Xerox copy of a comprehensive index of individual butterfly references in Wings and Stings and Victorian Entomologist will be available from the Secretary, on request.

J.C.Le Souef.

SPRING COLLECTING NEAR ORBOST, EAST GIPPSLAND.by Mark Hunting.<sup>\*</sup>1. Introduction.

Several opportunities were taken from the beginning of September to the middle of December, 1979, to systematically collect at a locality near Orbost in an effort to observe the progressive occurrence of butterflies over a period of time.

Mount Raymond was chosen as the suitable locality because of its proximity to Orbost and its relative ease of access.

Since the advent of Telecom transmitter towers and Forestry fire towers that have been constructed on some of the most prominent hills, many of the once inaccessible hilltops in East Gippsland have become readily trafficable to two wheel drive vehicles to the summit. How collectors in earlier years would have toiled to reach some of the rocky hills that are now accessible by road !

2. Topography.

Mount Raymond lies some 13 km to the east of Orbost and rises relatively steeply from the Snowy and Brodribb River flats. It is the first uncleared section of State forest as one travels from Orbost along the Prince's Highway and is conspicuous by the television, Telecom and Forestry towers.

The elevation is 294 m (960 ft.) at the top which has been cleared. The granitic slopes consist of open eucalyptus forest with smatterings of Acacia and Casuarina.

3. Weather.

The spring of 1979 was peculiarly dry and cool. East Gippsland suffered one of the driest years on record and the days were characterised by fresh westerly breezes. Nights were generally clearer and colder than normal.

These effects tended to retard the emergence of most butterflies; however it is considered that the relative occurrence of species to each other would remain fairly stable.

4. Occurrence of Species.

The species that were collected are listed in Table 1 to show their emergence on the wing over the period that Mount Raymond was visited.

April 1980

Victorian Entomologist

Species	Weeks			
	Sept.	Oct.	Nov.	Dec.
	181522233613202731017241815			
<u>Nesperiidae</u>				
Trapezites eliena			x x x x	x
" phigalioides		x	x x	
" phigalia phigalia			x	
Signata flammeata				x
Toxidia doubledayi			x	
Nesperilla idothea idothea			x x	
" donnyssa patmos				x
Mesodina halyzia halyzia				x
Taractrocera papyria papyria			x o o o	o
<u>Pieridae</u>				
Delias harpalyce		o		
" aganippe		o		
<u>Satyrinae</u>				
Argynnis cyrila		x		
Geitoneura klugii klugii				x
Heteronympha merope merope				x o
<u>Nymphalinae</u>				
Vanessa kershawi	o o	o o	x o o o	o
" itea			o x o	x
<u>Lycaenidae</u>				
Jalmenus evagoras evagoras				x o
Hypochrysops delicia aelos				x
Paralucia aurifer			x	
Canadulides consimilis goodingi				x
" hyacinthinus hyacinthinus	x o	o o	o o o o o	o
" xanthospilos			x o o x	
---				

TABLE 1

x denotes specimens collected

o denotes specimens observed only.

## 5. Observations.

### 1. Hesperilla idothea idothea.

Males were common for two weeks only, than completely disappeared. However, specimens were caught at other localities near Genoa throughout December.

### 2. Jalmenus evagoras evagoras.

The larvae were prolific upon the young black wattles (*Acacia mearnsii*) and it is a delight to see eggs, larvae, pupae and adults on the tree at the same time with the ants in attendance.

### 3. Candalides consimilis goodingi.

Males and a female were caught which showed a strong affinity to the creeper *Clematis glycinoides* covering the shrub *Tieghemopanax sambucifolius* growing on the flank of the hill near the top. Females seem to prefer the upper sides of a hill and settle repeatedly on particular plants. It is usual to collect males that have symmetrical pieces missing from their hind wings, indicating their conspicuous nature to predators.

This species completely disappeared from Mt. Raymond after one week on the wing, but was caught near Genoa in December on hilltops.

### 5. Signeta flammeata and Mesodina halyzia halyzia.

The emergence of these two skippers occurred with the flowering of the scrub tea tree (*Leptospermum shylicoides*) as both skippers feed from the white blossoms.

### 6. Acknowledgements.

Mr. Peter Fagg from the Orbost Forestry Office is to be thanked for identifying plant species.

### 7. References.

All references to names are in accordance with :

(i) Common, I.F.B. & Waterhouse, D.F.  
"Butterflies of Australia"  
 Angus and Robertson 1972

(ii) Willis, J.H.  
 A Handbook to the Plants in Australia Vol II  
 Melbourne University Press 1972

X C/o Orbost Waterworks Trust,  
 4-6 Clarke St.  
 Orbost, Vic., 3888

ON THE GRAPEVINE

With a cool spring and abnormally dry summer, things generally have been disappointing in the observing, collecting and recording of insects. There have, however, been odd spots of good early autumn emergences, hopefully improving as the season progresses.

There will be a welcome back to Past President Tim New, recently returned from world wanderers. While much of his time was spent at the Am, he did visit Spain as well, although the exciting part of his journeys would appear to be his camping out among the fierce carnivores of South Africa, checking on the insect fauna of the local Acacias.

After a very successful sojourn in the islands to the north of Cape York, Shane McEvey has returned with a large collection of Drosophila to continue his studies with renewed vigour at La Trobe University.

Latest news of Andrew Atkins is that he is searching for digs in London to spend a hectic few months photographing skippers at the Am. He hopes to return to Australia in June.

After a very poor season indeed, Gordon and Joy Burns did at least have one really good day between Noojee and East Narburton on the Stogmodera trail.

One of our newer members, Joral Stahl, is exhibiting two exquisite butterfly paintings at the Rosebud Rotary Master Art Fair, the first time that one of our members has exhibited at this popular art show.

Excitement prevails in the Manskie household with wide-ranging preparations for their first trip to the "Top End", leaving shortly. They expect to spend some time collecting on the East Alligator River.

In a note from Bob Fisher in Adelaide, he complained also of the very poor season for insects in South Australia. In retirement, he hopes to be able to spend more time in the field on the study of the insect fauna of that state.

.....

STOREBOXES

The late Llew Gooding's daughter, Mrs. Coulson advises that there are still some of the storeboxes which had held the Gooding Collection available from her at 16 Glenlee St. Traralgon, 3844.



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WRITE FOR CATALOGUE

CONTENTS

Minutes of General Meeting-22 February 1980-----	13
Minutes of Council Meeting-31st March-----	14
Craneblains Excursion Report-L.P.Crosby-----	15/16
General Index-----	17/20
Spring Collecting near Orbost, L.Gippsland, M.Hunting----	21/23
On the Grapevine-----	24
Storeboxes-----	24

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Burns, David Crosby, Ray Manskic, Shane McVeey,  
Andrew Calder, Brian O'Neill and Ian Atkinson.

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DAILY OF SCIENTIFIC EVENTS

Friday 18th April-General Meeting."A visit to the BM."A.Calder.  
Friday 19th June-Annual Meeting-Presidential Address.

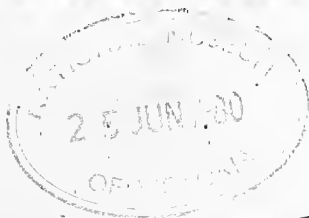
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VOL 10 NO 3

JUNE 1930

# VICTORIAN ENTOMOLOGIST



Registered for posting  
as a periodical Category B

Price 1/.

Journal of  
The ENTOMOLOGICAL  
SOCIETY of VICTORIA

# THE ENTOMOLOGICAL SOCIETY OF VICTORIA.

## MEMBERSHIP

Any person with an interest in Entomology shall be eligible for Ordinary Membership. Members of the Society include professionals, amateur and student entomologists, all of whom receive the Society's Journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and study groups, of libraries and of University and Departmental staff.

## OBJECTIVES

The aims of the Society are:

- (a) to stimulate the scientific study and discussion of all aspects of Entomology,
- (b) to gather, disseminate and record knowledge of all Australian insect species,
- (c) to compile a comprehensive list of all identifiable Victorian insect species, and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in Entomology.

## MEETINGS

The Society's meetings are held at Clunies-Ross House, National Service Centre, 191 Royal Parade, Parkville, Victoria, at 8 P.M. on the second last Friday of even months, with the possible exception of the December meeting which may be held earlier.

Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with like interests. Forums are also conducted with short addresses by members on their particular interest so that others can participate in the discussion.

## ANNUAL SUBSCRIPTIONS

Ordinary Member	10.00 (Aust.)	Approx 11.50 (U.S.)
Student, Associate Member	5.00 (Aust)	" 5.75 "
Journal posted surface mail		

No additional fee is payable. Associate Members, resident at the same address as, and being immediate relatives of an Ordinary Member do not automatically receive a copy of the Society's publications, but in all other respects rank as Ordinary Members.

## CONTRIBUTIONS TO THE "VICTORIAN ENTOMOLOGIST"

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of Entomology for publication within the Journal. Contributions are not restricted to members, but should be responsible and original. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed, it would be of great assistance if they were typed on A4 (International quarto) paper, single spaced with double spacing between paragraphs, a margin on the left of 1 cm and on the right 5 mm.

ADVERTISING .Five dollars per page.

June 1980

Victorian Entomologist

Minutes of the General Meeting held at Clunies Ross House on  
Friday April 11th. 1980.

The President welcomed members and visitors to the meeting which opened at 8.10 P.M.

Attendance- Mr. & Mrs. David Stewart, Mr. and Mrs. Gordon Burns, Mr. and Mrs. David Holmes, Mr. & Mrs. Ray Manskic, Miss Coral Stahl, Mr. & Mrs. Le Souef, Dr. Tim New, Messrs. Laurie and Kelvyn Dunn, Andrew Calder, Peter Carwardine, Ray Vargi, Tony Owen, Fred and John Hallgarten, Peter Kelly, Brian O'Neill, Vin Barrett & Miss Thornton.

Apologies- Mrs Dorothy Johnson and David Crosby.

Minutes of the previous General Meeting were passed on the motion of "Z" Le Souef and seconded by G. Burns.

Correspondence was received from Karger Libri and Paul Parey Publishers with journals from Ent. Soc. U., Ent. Soc. of Aust. (N.S.W.), Ecos.

Treasurer's Report-Balance Sheet elsewhere in this journal.

Editors Report- The Editor explained again that he always needed material to fill the pages of the journal. He received congratulations from the President regarding the recent publication of the index for Wings and Stings and the Victorian Entomologist. He stated that he hoped to extend that at a future date.

Excursions- With the approach of winter, outdoor excursions will be continued in the spring. Plans and being made for indoor excursions.

Exhibits- Gordon Burns- A display case of jewel beetles from various parts of the world.

Shane McEvey- A case of flies, mosquitoes and click beetles from Mount Adolphus Island and Moa Island, Torres Strait.

Kelvyn Dunn)- A case of butterflies from the Crambians.

Dr. Tim New- A box of antlions taken from wasps nests in Queensland.

David Holmes- Two cases of world butterflies.

Peter Carwardine.- Recent photographs of Dr. Norman B. Tindale when he was staying in Victoria.

President David welcomed back three members who have been absent from our meetings recently-Dr. Tim New, Shane McEvey and Fred Hallgarten.

Members were reminded of the Special Meeting held on Thursday, 29th May at 8 P.M. at Clunies Ross House. The guest speaker will be Dr. Ian Common, C.S.I.R.O., Division of Entomology, Canberra. The President thanked "Z" Le Souef for arranging this meeting.

June 1980

Victorian Entomologist

Congratulations were extended to Dr. Andrew Calder on his receiving his Doctorate since the last meeting. Guest speaker for the evening, he showed a variety of coloured slides depicting the various places he had visited in England, Scotland and Ireland. Andrew answered questions on aspects of his trip from members. He was thanked by the President on behalf of members.

The meeting closed at 9.45 P.M..

The next meeting is the Annual General Meeting to be held on Friday 20th. June, 1980

.....

Minutes of Council Meeting held at Clunies Ross House on Friday 23rd. May, 1980.

President David Stewart chaired the meeting which opened at 8.10. P.M..

Apologies were received from Dr. Tim New and Ray and Nola Manskie.

Minutes of the previous Council Meeting held on Friday 21st. March, 1980 were passed on the motion of Brian O'Neill and seconded by Gordon Burns.

Correspondence - Karger Libri, Wilderness Congress, DSIR, application for membership from San Aquilina, MNR radio report Applied Entomology, Neta, and bulletins from Ent. Soc. Q and Ent. Soc Aust (NSA). Moved by David Crosby and seconded J. Burns.

Treasurers Report- There was a credit of £1207.50 in the General Account with £251.54 in the Publications Account. There are 40 financial members at the present time.

Moved by Peter Carwardine and seconded by David Crosby.

Editors report. If the promised papers come to hand, there will be sufficient material for the next journals.

Excursions- Again the matter of a winter excursion came under discussion with the hope that a visit to the Keith Turnbull Institute can be arranged.

General Business. Peter Carwardine reported on the possible purchase of an editorial typewriter. He found that a suitable 10 pitch electric carbon ribbon machine was available from £250 to £300 while the golf ball 715 would cost £675. It was moved by David Crosby and seconded by Andrew Calder that Peter Carwardine make final arrangements if possible with a student concession. Brian O'Neill moved that Peter Carwardine and Shane McEvey go ahead and purchase a machine.

June 1980

Victorian Entomologist

Council Meeting Minutes continuedGeneral Business cont.

Speakers-August-Shane McEvey. Visit to islands off Cape York  
 October-Dr. Tim New. Report on his recent overseas trip  
 December-Laurie Dunn's movie on butterflies.  
 February-Ray and Nola on their Alligator River trip.  
 April-David Crosby on a visit to South America.

Entrees-David Crosby reported on the possibilities of a computer programme. As the gross cost would be \$1200, the matter was left in abeyance for further discussion.

Unfinancial members- No journal will be forwarded to unfinancial members but a memo asking if they wish to continue membership.

This being the last council meeting for the year, David Stewart thanked council members for their support during his year as President, in particular the Editor and Treasurer for their work.

The meeting closed at 9.25.P.m.

.....

Special Meeting of the Society held at Clunies Ross House on Thursday 29th May 1980.

Apologies-Dr. Tim New, Keith Hateley, Ray and Nola Manskie, Ian Watkinson and Bob Condon.

This meeting was arranged to give members and friends the opportunity of hearing an address by Dr. Ian Common of the Entomological Division, C.S.I.R.O. on "The Survival Mechanisms of Australian Lepidoptera"

In welcoming those present at the meeting, President David Stewart expressed his great appreciation of having Dr. and Mrs. Common and Dr. and Mrs. Tindale at this meeting.

Those present were fascinated by Dr. Common's talk illustrated by the many magnificent slides depicting many insects ability to deter predators.

A resume of his address will appear in a later journal.

An added treat was a short address by Dr. Norman B. Tindale who gave a short run down on his life and work with anthropology and entomology.

A vote of thanks was moved by "Zoo" Le Souef on behalf of those present.

The rest of the evening was taken up with many questions during personal chats with Dr. Common and Dr. Tindale.

The meeting closed at about 10.40 P.m.

.....

Hon. Treasurer's Report.

Statement of Receipts and Expenditure for the Year Ended 31st. December, 1979.

Credit Balance brought forward .....868.41

Receipts

Bank Interest(General chq a/c)..... 28.74  
Subscriptions.....445.  
Ex Subs.Journal sales..... 54.  
Advertising sales ..... 42.  
Deposit Refund camp hire..... 100.  
Fee Refund..... 18  
Publications Fund(equipment)  
Including 3.08 instt..531.34

£1501.49

Expenditure

Journal Production,Photocopying  
Stationary.....176.54  
Postage..... 60.47  
Secretary's Petty Cash..... 10.  
Projector use..... 10.  
Greeting flowers..... 16.60  
Poster..... 12.50  
Credit Publications Fund(equipment).....531.34  
Credit balance cheque a/c.....963.64

£1501.49

Audited and found to be in accordance with the records submitted

Kevin Ross,  
Chartered accountant,  
Melbourne.



June 1980

Victorian Entomologist

MORE RECORDS FROM CROAJINGALONG NATIONAL PARK, EAST GIPPSLAND

by Mark M. Hunting.

1. Introduction.

Having become well acquainted with Archie May of Noorinbee near Cunn River, several collecting trips have been made into the far eastern corner of Victoria.

Possibly the most interesting of these times we spent together included a visit to Genoa Peak in the newly formed Croajingalong National Park, which stretches along the coast from Sydenham Inlet to Cape Howe.

2. Topography.

Genoa Peak rises abruptly above the forest into a pink granite outcrop of elevation 489 M (1600 ft.). Because the peak is so rocky, only stunted and hardy vegetation can survive—such as the giant honey myrtle (*Melaleuca armillaris*). Its white bottle brush flowers appear in January and attract swarms of insects.

3. Species collected.

Although the final climb to the summit took at least 20 minutes along a walking track, it was not until we were 10 M from the summit that we saw our first butterfly!

Species caught on December 15th., 1979 are listed in the following table:

Species	Comments
<u>Hesperiidae</u>	
<i>Signeta flammeata</i>	freshly emerged male
<i>Toxidia andersoni</i>	a few males
<i>Hesperilla idothea idothea</i>	a few males
" <i>donnysa patmos</i>	one male
" <i>mastersi mastersi</i>	freshly emerged males
<u>Satyrinae</u>	
<i>Tisiphone abeona albifascia</i>	freshly emerged males
<u>Lycaenidae</u>	
<i>Pseudodipsas brisbanensis</i>	one male flying with cuprea
" <i>cuprea</i>	males very plentiful
<i>Candalides consimilis goodingi</i>	Males very plentiful

4. Further comments.

- (1) *Pseudodipsas brisbanensis* does not appear to have been recorded from East Gippsland before. It is not yet known whether this intermediate locality is an extension to the nominotypical race which ranges as far south as Pamabula, N.S.W. (Common, 1964), or whether it extends the Victorian race "cyrillus".

(ii) *Pseudodipsas cuprea* were generally paler with the basal band on the forewing more yellowish than specimens from northern N.S.W.

#### 5. Acknowledgements.

- (i) Mr. Peter Fagg (Forests Commission, Orbost) for identifying plant species.
- (ii) Mr. Peter Allard (National Parks Service, Cann River) for giving permission and a permit to collect in the Croajingalong National Park.

#### 6. References.

All references to names are in accordance with :

- (i) Common, I.F.B. & Waterhouse, D.F.

"Butterflies of Australia". A. & K. 1972

- (ii) Willis, J.H.

"A handbook to Plants in Victoria", Vol II

M.J.P., 1972

( 29 Paloma St., South Oakleigh, Victoria, 3167. )

.....

#### A NEW LOCALITY FOR *HYPOCHRYCOPS DELICIA DELUS* IN VICTORIA.

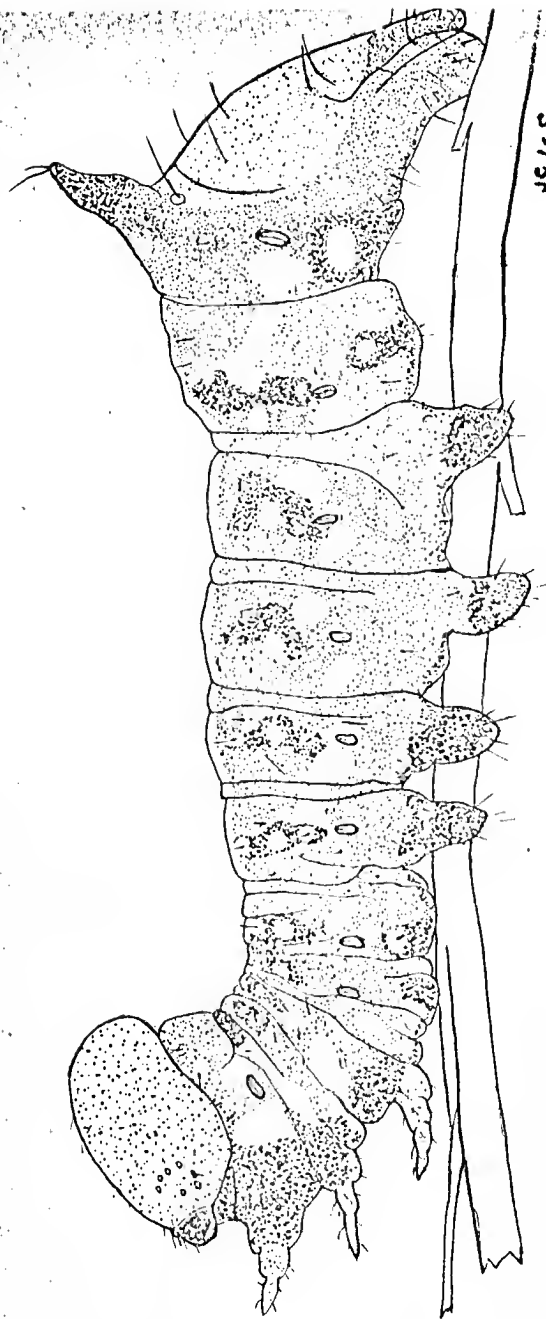
(Lepidoptera-Lycaenidae)

by K.L. Dunn.

On the 9th. January, 1980, three specimens of *hypochrysops delos* were observed hilltopping at Reed's Lookout in the Grampians, western Victoria. Of these, one male was taken. The You Yangs has previously been recorded as the western limit of this species in Victoria. This new locality extends the known distribution range approximately 200 km. westward.

It should be noted that at the same locality in early 1978, I observed fleeting glimpses of this butterfly which, at the time, I was unable to identify. After discussion with other collectors, it was suggested that it was possibly *Ocyris otanes*. The capture of the butterfly *H. delicia* verifies that the sightings in 1978 were not *O. otanes*.

.....



Camera lucida drawing of the larva of the moth, Tunina banksi  
found on a small banksia at Frankston, 22 August, 1942.

EXPEDITION TO MOUNT ADOLPHUS ISLAND, 1979-80.

By Shane P. McIvey.

Although privately funded and planned, the trip I made with four companions to Mount Adolphus Island, Torres Strait, was closely linked to the activities of the Australian and New Zealand Schools Exploring Society. The Society is a non-profit organisation formed in 1977, with the aim of launching annually a scientifically oriented expeditions of young men and women into virtually unexplored areas of Australia and New Zealand.

The objectives of the Society in brief are to develop personal qualities, an appreciation of man's relationship with the environment, competence in scientific field work and an ability to live and work harmoniously with others in the pursuit of common goals.

As Zoology Group Leader on the Society's inaugural expedition to South West Tasmania in December '78-January '79, I became deeply involved with planning and preparation which are vital for an expedition's success. This stood me in good stead during the following year to embark on a private expedition, this time to Australia's northern most tip.

For direction in our preparation, we gave ourselves three objectives-(1) to carry out studies in entomology, ornithology and botany; (2) to determine the requirements for a larger ANZSES expedition to similar latitudes at that time of the year; and (3) to have fun!

After a five day journey from Melbourne by train, taxi, plane bus and launch, we eventually arrived at our 'staging point'-Thursday Island. After a brief stay on Thursday Island, we were on our way. With some difficulty, we had found a skipper who was prepared to drop us off at Mount Adolphus Island on his way to Cairns. Torres Strait can certainly build up a swell, especially in the north-eastern throat of Endeavour Strait, waves smashing over the barge's bow as we headed due east, straight for Mount Adolphus, past Cape York. The high peaks of 'our' Mt. Adolphus could be seen as soon as we rounded Horn Island near Thursday Island. It was an exciting time as we sat, five in a row high on the cabin roof, staring straight ahead at what was going to be our remote home for the next five weeks.

Sand flies gave us hell on the first night because we didn't have time to establish a camp away from the beach. Water was going to be a problem. Conditions were very dry and, with cloudless skies, exceptionally hot. We had about 300 litres of water in jerry cans to last until the rains came and a two-way radio with an efficient dipole aerial (many thanks to Nigel Quick) in case it didn't come.

With drinking water rationed to three litres per man per day, there was not sufficient at that early stage (16 Dec.) to allow us to do much exploration. Pushing through the dense, woody sclerophyllous scrub was thirsty work.

The first rain fell on Christmas Eve, filling a tarpaulin which had been stretched with optimistic expectation to catch the first drops. Billy tea, custard, plum pudding, ham and cranberry sauce together with our replenished water supplies, meant that we did, indeed, have a very merry Christmas !

Soon afterwards we had conquered Mt. Asolophus ! The only rain forest on the seven square kilometer island was nestling on the western side, away from the strong, dry south-east trade winds which apparently blow continuously during the winter months. Here, of course, were all the insects and now that the journey from base camp could be made without fear of running out of water, my collecting really got under way.

Butterflies here were not abundant. Several species flew in the shafts of sunlight near the rainforest edge. Among them were: Papilio fuscus, Mycalesis terminus, Yponomeuta sabina, Mycolias bolina, Cepora perissus and a Marathrus species. However, on this expedition my particular interest was not with butterflies but with another group - Drosophila flies; my Torres Strait data would form the basis of my honours thesis research during 1980. In the shady, damp rain forest interior, the tiny drosophila flies could be found hovering round fungus, fermenting fruit and rotting vegetation. Indiscriminate sweeping with the net through the undergrowth would sometimes yield scores of specimens, some belonging to the attractive genus Leucophaea, males of which often have broad white abdominal bands, others smaller and less colourful but equally as interesting - Drosophila ananassae, D. concolor, etc. These species are typical of rainforest habitats in New Guinea or north Queensland.

In the evenings, at least two or three hours would be devoted to the pinning of the day's catch, not an easy task without the aid of a microscope, but nevertheless, as we all know, an important part of the field entomologist's routine. Fading light and delicious aromas from the camp fire pots usually brought an end to the day's work on insects.

Our five week's stay on the uninhabited island was full of adventures. We discovered a goat, caught sharks, spoke to a Cber in Perth, acquired a taste for several types of plant and had an unlimited supply of oysters and fish.

Above all we had great fun and achieved our objectives completely.

AN UNUSUAL YEAR

By Gordon and Joy Burns.

Although, as a whole, the 1979/80 season was a very disappointing one for Diptera collecting, a two day trip to Noojee-Warburton area at the end of January proved most rewarding. A total of 26 species was collected in the two day period.

The poor season was not confined to Victoria but appeared to cover the whole of the eastern half of the continent, possibly due to the dry winter and above average spring rains. Yet there were several instances of collectors taking species that they had not taken before. In our case we took four new to us. Some species that were normally considered rare were found to be more numerous than other years, while many of the usually common ones were in reduced numbers or not seen at all.

The following is a list of the species taken:

Cisnois	1 sp.
Melobasis purpurescens	
Stigmmodera (Castiarina)	australasiae L. & G.
"	bella Saunders
"	bremei (Hope)
"	cruentata (Kirby)
"	erythroptera (Boisduval)
"	flavopicta ( " )
"	hilaris Hope
"	insignis Blackburn
"	kerrimansi Blackburn
"	octospilota L. & G.
"	pulchripes Blackburn
"	punctatosulcata Saunders
"	rufipennis (Kirby)
"	scularis (Boisduval)
"	semisuturalis Saunders
"	sexguttata Macleay
"	sexplagiata Gory
"	skusei Blackburn
"	thompsoni Saunders
"	wilsoni Saunders
"	spinolae Gory
"	vicina Saunders
"	variopicta Thompson
"	bifasciata (Hope)

Unknown 1

.....

AN AMERICAN JOINS THE "BURNSMOBILE".

During January, we were pleased to have as a visitor, Charles (Chuck) Bellamy of California, U.S.A.

Chuck is at present studying for a Masters Degree in Entomology. He is specialising in the world Buprestidae and during his three weeks stay he had hoped to be able to add many species of Australian Buprestids to his collection.

We decided to take him north, travelling through Warburton, Alexandra, then Albury-Wodonga to Sydney meeting up with Geoff and Nellie Williams who were most helpful with collecting spots round Sydney. Then on to Stanthorpe, Queensland, where we spent a couple of pleasant hours in the field with Jean Marslett.

Even though Chuck was mainly interested in the Jewels, other families found their way into his collecting jars for colleagues back in the States. The rain forests near Cunninghams Gap provided many specimens for this purpose but, unfortunately, no Buprestidae.

On the way home, Gordon unfortunately was hospitalised leaving me to carry on south with Chuck.

Having returned to Melbourne, we visited spots on the Peninsula with "Zoo" Le Sueuf.

Altogether, a journey of approximately 3,400 miles produced less than 20 species of Buprestidae !

Joy Burns

(Who, while confined to bed in hospital, had a sister and two nurses armed with a mop trying to catch a Cerambycid which had flown into the ward ?)

.....

VALE JOAN HALLGARTEN.

After a long illness, Fred Hallgarten's wife Joan passed away on the 1st of June last.

Although we saw little of her at our meeting, she did accompany Fred on various excursions and collecting trips.

The Society's sympathy goes to Fred, John and the family.

J.C. Le S.

June 1980

Victorian Entomologist

ON THE GRAPEVINE.

One way and another there have been quite a number of events of special interest since the appearance of the last Journal.

For our part, Mary and I had the great pleasure of being present in the Congregation for the Conferring of Degrees for the Australian National University in the Canberra School of Music when Mr. Norman Barnett Tindale, BSc Acel., HonBSc Colorado, was presented for the degree of Doctor of Science honoris causa by Professor D.J. Mulvaney. It was, indeed, a memorable occasion. Among such a bevy of anthropologists, we were joined by Ian and Jill Common to provide the entomological relief. Although caught up in the excitement with the Tindale family in the VIP unit at University House, we did manage to spend a little time among the cabinets at CSIRO and meet the folk over a cup of tea.

More recently, there was quite a flurry in the Entomological Department of the National Museum at Abbotsford when it so happened that the Tindale itinerary and that of Ian Common coincided. While Ian was busy photographing micros, Finnie was busy among the Synemon drawers. There was quite a hive of activity there for a few days. On the Thursday evening of that busy week, at long last we were able to have the pleasure of having Ian to address the Society. It was quite a strange sight to see Finnie quietly relaxing in the audience after such a non-stop of addresses, seminars and conferences, his degree ceremony and the receipt of the coveted John Lewis medal in a ceremony from the Geographical Society of South Australia. To have him, full of honours, and Ian, Im. President of the Lepidopterists Society and just elected to the chair of the Aust. Ent. Soc. both at our meeting was, indeed, an honour.

While we at home were enjoying these occasions, two of our members were "on the wallaby" in distant fields. David and Mary Crosby had the thrill of a tour of South America, marvelling at the tremendous numbers of species and specimens of that exotic fauna.

Ray and Nola Manskie have also just returned home after a trip to the South Alligator River in the Northern Territory. Although circumstances prevented a concentrated attack on the local insect fauna, they brought home an interesting collection of butterflies.

Good news indeed! Our skipper king, Andrew Atkins, is due home again early next month. He will, no doubt, be more than pleased to be able to lead a normal life again after all the difficulties he has met with during his sojourn in England.

Friends of Keith and Mary Hateley will be distressed to hear that Mary has been in poor health lately with a longer spell in hospital than usual.

Gordon and Joy Burns are busily preparing for their northern safari later in the month.

The latest Member to join our ranks, Dorothy Johnson, an enthusiastic coleopterist, has been elected President of the Frankston Field Naturalists Club.



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## CONTENTS

Minutes of General Meeting-11th April 1980.....	25
Minutes of Council Meeting-23rd May.....	26
Special Meeting-Address by Dr Ian Common.....	27
Hon.Treasurer's Report.Balance Sheet.....	28
More records from Croajingalong Nat.Park-M.Hunting.....	29/30
A new locality for <i>Hypochrysops delicia</i> -K.Dunn.....	30
Danima banksi, J.C.Le Souef.....	31
Expedition to Mt.Adolphus Island, S.McEvey.....	32/33
An unusual year-G.& J.Burns.....	34
An American joins the "Burnsmobile"-Joy Burns.....	35
Vale Joan Hallgarten.....	35
On the grapevine.....	36

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Abbotsford, 3067, Telephone-4195200

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### Immediate Past President

Dr.Tim New, Zoology Dept., La Trobe University,  
Bundoora, 3083

### Councillors

Mesdames Joy Burns, Mary Le Souef, Messrs.Gordon  
Burns, David Crosby, Ray Manskie, Shane McEvey,  
Andrew Calder, Brian O'Neill and Ian Watkinson.

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## DIARY OF COMING EVENTS

Friday 20th June -A.C.M.-Presidential Address.

Friday 22nd.August-Visit to islands off Cape York-Shane McEvey.

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VOL. 10 NO. 4

AUGUST 1980



# VICTORIAN ENTOMOLOGIST



Journal of  
The ENTOMOLOGICAL  
SOCIETY of VICTORIA

Registered for posting  
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# THE ENTOMOLOGICAL SOCIETY OF VICTORIA

## MEMBERSHIP

Any person with an interest in Entomology shall be eligible for Ordinary Membership. Members of the Society include professionals amateur and student entomologists, all of whom receive the Society's Journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and study groups, of libraries and of University and departmental staff.

## OBJECTIVES

The aims of the Society are :

- (a) to stimulate the scientific study and discussion of all aspects of entomology,
- (b) to gather, disseminate and record knowledge of all identifiable Australian insect species,
- (c) to compile a comprehensive list of all Victorian insect species and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in Entomology.

## MEETINGS

The Society's meetings are held at Clunies Ross House, National Science Centre, 191 Royal Parade, Parkville, Victoria, at 8 P.M. on the second last Friday of even months, with the possible exception of the December meeting which may be held earlier.

Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with like interests. Forums are also conducted with short addresses by members on their particular interest so that others can participate in the discussion.

## ANNUAL SUBSCRIPTIONS

Ordinary Member.....	10.00 (Aust)	Approx 11.50 (U.S)
Student, Associate.....	5.00 (Aust)	" 5.75 "

## JOURNAL POSTED SURFACE MAIL

No additional fee is payable. Associate Members, resident at the same address as, and being immediate relatives of an Ordinary Member do not automatically receive a copy of the Society's publications, but in all other respects rank as Ordinary Members.

## CONTRIBUTIONS TO THE "VICTORIAN ENTOMOLOGIST"

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of Entomology for publication within the Journal. Contributions are not restricted to Members, but should be responsible and original. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed it would be of great assistance if they were typed on A4 (International quarto) paper, single spaced with double spacing between paragraphs with a margin of 3 cm.

ADVERTISING: Five dollars per page.

August 1980

Victorian Entomologist

Minutes of the Annual General Meeting held at Clunies Ross  
House on Friday 20th. June 1980

The President welcomed members and visitors to the meeting which opened at 8.10 P.M.

Attendance : Mr. and Mrs. D. Stewart, Mr & Mrs. G. Burns, Mr. & Mrs. D. Holmes Mr. & Mrs. "Z" Le Souëf, Mr. & Mrs. R. Manskie, B. & S. Condron, L. & K. Dunn, P. Kelly, A. Calder, J. Hallgarten, P. Carwardine, M. Connor, R. Vagi, Miss C. Stahl and Miss D. Greenstreet.

Apologies : D. Crosby, F. Hallgarten, S. McEvey, A. Neboiss.

Minutes : The Minutes of the previous Annual General Meeting as published in Vol. 9, No. 4 of the Victorian Entomologist, were passed on the motion of M. Le Souëf and seconded by T. New.

Correspondence: received as published in the Council Meeting Minutes Vol. 10, No. 3 with the addition of Ian Clunies Ross Memorial Foundation, the Convention, Computers, Communications and Electronic Technology, Mr. R. Lucien and Mr. F. Hallgarten, Moved by R. Manskie, seconded, J. Burns.

Treasurer's Report: The Treasurer reported that there is a credit balance of \$1217.52 in the General Account and \$260.75 in the Publication Account. There are 42 financial members It was moved by N. Manskie seconded by G. Burns that the Treasurer's Report as published in Vol. 10 No. 3 be accepted.

Excursions : P. Carwardine reported that plans are being carried out to have a winter indoor excursion.

General Business: As a mark of respect at the death of Joan Hallgarten, the President called for a minutes silence.

David then thanked office bearers for 1979/80 for their support and committee members for their advice and help. Thanks too, were extended to Dorothy Johnson for her gift of name labels.

An electric typewriter has been purchased by the Society for the use of each editor. The question of insurance and housing of this machine will be discussed at the next Council Meeting.

Thanks were expressed to David Stewart by Laurie Dunn, who took the chair during the election of office bearers, for his dedication as President of the Society during his year in office.

The meeting closed at 10.P.M.

The next General Meeting will be held on Friday August 22nd. the speaker being Shane McEvey.

The speaker for the meeting on Friday October 24th will be Dr. Tim New who will speak on "Australian Acacias in South Africa-Prospect for Biological Control".



Election of Office Bearers for the Year 1980/1981

The elections were conducted by Laurie Dunn.

President

Nomination	David Stewart	
Proposer	"Z" Le Souef	
Seconder	T.New.	Elected

Vice-Presidents

Nomination	Peter Carwardine	
Proposer	M.Le Souef	
Seconder	A. Calder	Elected
Nomination	A. Calder	
Proposer	J. Burns	
Seconder	D. Holmes	Elected

Hon. Secretary

Nomination	N. Manskie	
Proposer	T. New	
Seconder	G. Burns	Elected

Hon. Treasurer

Nomination	B. Condron	
Proposer	N. Manskie	
Seconder	S. Condron	Elected

Editor

Nomination	"Z" Le Souef	
Proposer	D. Stewart	
Seconder	T. New	Elected

Councillors

- |     |            |              |          |
|-----|------------|--------------|----------|
| (1) | Nomination | M. Le Souef  |          |
|     | Proposer   | T. New       |          |
|     | Seconder   | K. Dunn      | Elected  |
| (2) | Nomination | C. Stahl     |          |
|     | Proposer   | J. Burns     |          |
|     | Seconder   | N. Stewart   | Elected  |
| (3) | Nomination | J. Burns     |          |
|     | Proposer   | M. Le Souef  |          |
|     | Seconder   | A. Calder    | Elected  |
| (4) | Nomination | R. Manskie   |          |
|     | Proposer   | A. Calder    |          |
|     | Seconder   | D. Holmes    | Elected  |
| (5) | Nomination | G. Burns     |          |
|     | Proposer   | D. Holmes    |          |
|     | Seconder   | J. Holmes    | Elected  |
| (6) | Nomination | B. O'Neill   |          |
|     | Proposer   | "Z" Le Souef |          |
|     | Seconder   | R. Manskie   | Elected  |
| (7) | Nomination | I. Watkinson |          |
|     | Proposer   | "Z" Le Souef |          |
|     | Seconder   | M. Le Souef  | Elected  |
| (8) | Nomination | D. Crosby    |          |
|     | Proposer   | "Z" Le Souef |          |
|     | Seconder   | T. New       | Elected. |

Minutes of the Council Meeting held at Clunies Ross House  
on Friday, 18th July, 1980.

President David Stewart chaired the meeting which opened at 8.15 P.M.

Apologies - were received from Gordon and Joy Burns, Bob Condron and Tim Now.

Minutes of the previous Council Meeting held on Friday May 23rd, 1980, were passed on the motion of Peter Carwardine and seconded by "Zoo" Le Sueuf.

Correspondence has been received from Karger Libri, Ian Clunies Ross Memorial Foundation, Peter S. Valentino, bulletins from Ent. Soc. Q., Aust. Ent. Sec., Ent. Soc. N.S.W., Weta (Ent. Soc. N.Z.) and Vic. Nat. Parks.

Treasurer's Report - There is a balance of \$1007.52 in the General Cheque Account and \$260.75 in the Publications Account.

Excursions-Arrangements are being made to visit the Keith Turnbull Institute on August 30th or 31st. or September 6th. or 7th. Tentative dates for spring and summer excursions are for Cranbourne (November 8th. or 9th.), Jamieson Road (Australia Day weekend, 1981), Cathedral Lane (March 1981).

The meeting closed at 9.15 P.M.

The next Council Meeting will be held on September 19th.

Guest Speaker for the August General Meeting will be Shane McEvey telling of his experiences on a visit to the islands to the north of Cape York.

--od00o--

ON THE GRAPEVINE.

After two years absence overseas, there was much excitement in the Atkins household when Andrew returned recently. With the few days he had in Melbourne, he was extremely busy checking on his collection and generally organising things before leaving to take up his appointment as a designer with the CSIRO, Canberra. He was accompanied by Jane Wylie who has been helping him with his work at the BM. She has come out on a nine months working holiday.

The last day of August will be a momentous one for David Crosby. This is the day he has chosen to put behind him what has become known as the "rat race" of commerce. Happily for entomology, he is to devote much of his "retirement" to continuing his work on the Entrees scheme, a far more satisfying pursuit.

Word from Ross and Julio Field told of his continuing success with his studies and of a holiday break with a tour to the north, just missing the St. Helens volcano eruption, south to the wonderful Yellowstone National Park and home to Berkeley.

SURVIVAL MECHANISMS IN AUSTRALIAN LEPIDOPTERA.

by I.F.B. Common

(Address given to the Victorian Entomological Society, 29/5/80).

All organisms are the product of their heredity and their environment. During their long evolution insects, like other animals, have had to withstand a vast array of environmental pressures. Adaptation has been the key to their survival. And to avoid extinction the insects around us today must continue to adapt to an ever-changing environment.

The environment of any organism is a complex mosaic of physical and biotic elements. Its physical environment consists of its inanimate surroundings such as soil or water which are influenced among other things by temperature, humidity, barometric pressure, rainfall and evaporation; these together make up climate, a major factor in determining distribution. Insects have become adapted physiologically to a wide range of climates, and some have evolved behavioural mechanisms which assist them to withstand extremes of temperature, desiccation etc. Many of the devices they use to resist unfavourable physical conditions are also of value in protecting them against living enemies.

The biotic environment of an insect is provided directly or indirectly by other organisms. The insect may depend upon other animals or upon plants for food and shelter. Its survival may be affected by other individuals of the same species with which it may have to compete for space, food and other resources. If populations of its own species are high it may benefit if it is gregarious, or it may suffer from cannibalism or disease. Its survival may also be affected by individuals of other species, again by competition for space, food or other resources, or by parasitism or predation.

The Lepidoptera are one of the most successful groups of insects, judging by the number of species and their abundance. Part of their success is no doubt due to their evolution of a great variety of mechanisms to aid them in resisting predation, especially by vertebrates. Seldom does any species depend on a single defence mechanism; most have several lines of defence, each of which can be tried in turn if the preceding ones fail. Birds are amongst the commonest predators of moths and butterflies and utilise their visual acuity in searching for their prey. They are also capable of learning, either to discover their prey more effectively or to avoid prey that has proved unpleasant or harmful.

The larvae of many Lepidoptera avoid attack from predators by living deep within plant tissues: they may bore in stems or branches, mine in leaves or in bark, tunnel in fruits, seeds or galls, or burrow in flowers. Others



tunnel in soil, remain deep in the leaf litter or under debris, make shelters by spinning leaves together with silk, or construct portable cases. Concealment of various kinds can also provide protection from unfavourable weather conditions and from desiccation.

The larvae, pupae and adults of many moths and butterflies avoid predation by camouflage, their erythric coloration or pattern, or their structure and behaviour, enabling them to merge with their background. In response to disturbance others exercise reflex escape mechanisms, by feigning death (thanatosis), by wriggling violently, or by evasive flight. A hard leathery cuticle, characteristic of some lycaenid larvae, can also frustrate attack.

Unexpected behaviour patterns, or a grotesque appearance, also tend to deter predator attack. The surprise display of a bright colour or pattern, or of bold eye-spots, sometimes reinforced by a feigned attack upon the predator, are defence adaptations commonly found in Lepidoptera.

The various chemical defence mechanisms evolved by moths and butterflies have been the subject of much recent research. Some species secrete unpleasant, distasteful, repellent or toxic substances which ensure that they will be rejected by most predators. Such substances are often acquired unchanged from the food plant, but are sometimes manufactured by the insects themselves. The secretion of these chemicals is often associated with bright warning (aposematic) coloration, with which predators rapidly learn to associate distastefulness. Sometimes a series of unrelated species having unpleasant chemical properties adopt similar bold patterns, thereby warning potential predators that they should not capture any insects which display those patterns. Such species are said to mimic one another and are known as Mullerian mimics. Sometimes edible insects adopt the bold coloration of harmful ones and thereby deceive the predator by their superficial resemblance to insects the predator has learned to avoid. These are known as Batesian mimics, and for this mechanism to be effective the mimics must be much less abundant than their models. Recent work has shown that there is no sharp line of demarcation between Mullerian and Batesian mimicry.

The speaker discussed many of these survival mechanisms and illustrated them with colour transparencies of the adult and immature stages of Australian Lepidoptera.

August 1980

Victorian Entomologist

Summary of Presidential Address to the Entomological Society  
of Victoria, June 1980.

PLANTS THAT PREY ON INSECTS.

David Stewart.

Of the various predators of insects, perhaps the members of the plant kingdom that trap and digest insects receive the least recognition, yet many species occur in vast numbers and by their numbers alone must be active in destroying large quantities of insects.

The methods of catching insects used by these plants have been known for some time. The carnivorous plants are classified within 6 families, 14 genera and approximately 420 species and are distributed around the world in many climates ranging from temperate to tropical. In this address, I plan to examine the traps used by the 14 genera to acquire nutrients.

All of these plants produce their carbohydrates by the usual photo synthetic processes and all will survive without digesting arthropods. However, as most occur in nutrient deficient soils, it is believed that the additional minerals and amino acids obtained from their prey result in a more vigorous plant and a greater seed yield.

These plants actively trap and digest their prey with specialised leaves, a function that is quite distinct from that carried out by many orchids and other plants, that trap and release insects as a method of transferring pollen from male to female organs.

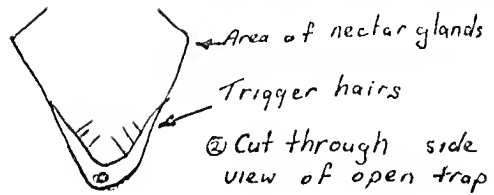
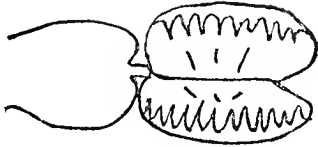
Australian species are mostly inconspicuous, however, some occur in very large numbers, sometimes forming an insects catchment area covering many square kilometres.

Charles Darwin studied the plants that prey on insects and 105 years ago, published a book with the title of "Insectivorous Plants". He believed the Venus Fly Trap, *Dionaea muscipula* (fig. to be the most wonderful plant in the world, therefore I feel that it is appropriate to examine this monotypic genus first.

The plant occurs on coastal plains of North and South Carolina and all attempt to introduce it into other suitable areas have failed. This plant is highly specialised and it's habitat is threatened in many areas by development projects. Fortunately, the plant is readily raised from seed and relatively easy to cultivate.

*Dionaea* grows around the perimeter of swamps and bogs apparently in substrate with a certain moisture content. It appears to benefit from fires, the rhizome growing several centimetres below the soil surface is not damaged by fire which is believed to reduce competition from other plants.

① Dionaea Top view of open trap.



② Cut through side view of open trap

③ Trap fully closed.



④ Stage one of trap closing



Fig.1.

Cephalotus trap

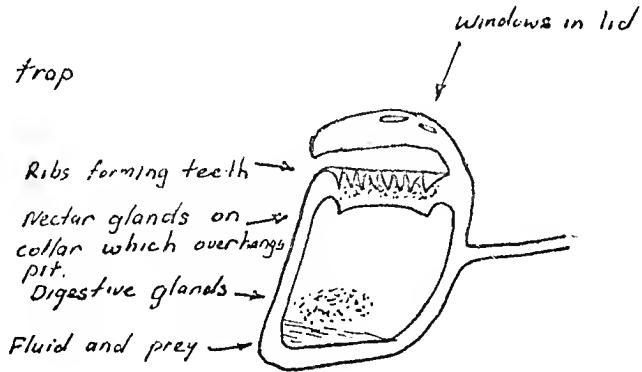


Fig.2.

Two types of gland occur inside the trap. In the centre of the trap in and around the trigger hair are the digestive glands that secrete the digestive fluids and an acid, formic acid, which is believed to act as a bactericide. Arranged round the inner perimeter of the trap near the base of the interlocking guard hairs are glands that secrete nectar to attract prey. This spacing of the nectar glands and the trigger hair is very important as it acts as a rough gauge of the size of prey that will trigger the trap. If a very small insect were trapped, the nutrients gained would not compensate for the energy lost, on the other hand, if big prey is trapped, which sometimes happens, the trap does not contain enough fluid with formic acid to control the rate of decay and the leaf rots with the prey.

Each trap can catch prey 3 or 4 times before it ceases to function. When suitable prey is caught, the trap remains closed for one or two weeks.

West Australian Pitcher Plant, Cephalotus follicularis  
Figs. 2, 2a.

This small monotypic plant occurs in swampy areas on the south coast of Western Australia growing to a height of 50 mm.

Columns of hair on the outside of the trap act as pathways to channel prey into the mouth of the pitcher where the rim is a series of ribs which terminate inside the pitcher's sharp downward pointing teeth between and below which are nectar producing glands. Below this rim forms an overhang which is smooth and waxy from which the prey lose foothold and drop to the fluid below.

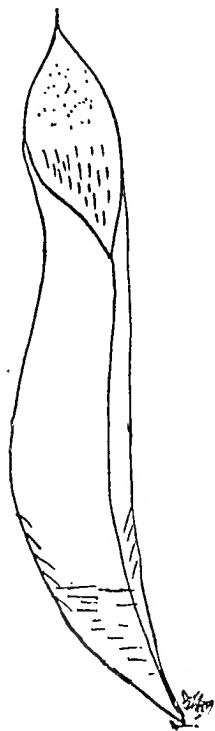
The lid of the pitcher is sealed until it is mature enough to start trapping and digesting. The lid has a number of transparent windows which are believed to cause flying insects to rebound into the pit when they attempt to fly out of the pitcher through the windows.

It is known that when acid is added to the fluid in the pitcher, it initiates break down of the prey. The digestive fluid then completes the breakdown. It may be that the formic acid in ants, which form a substantial proportion of the prey, starts the digestive processes.

Sam Pitchers, Nelipamphora, Fig. 3.

A South American genus which shows great variation and is not well known, contains six species so far known.

It looks like a wide leaf rolled around and fused on the edges to form an open funnel or pitcher, has no hood and therefore fills with water during rainstorms. The groove formed by the lower edge of the rim acts as a strainer to retain dead prey and allow excess fluid to drain from the pitcher during downpours. Bacteria break down prey; no digestive fluids are secreted as they would be diluted without the protection of a hood to deflect rain. The plant does, however, secrete nectar in the upper inside of the pitcher. Downward pointing hairs at the top tend to direct feeding insects down to the zone of the wall which is smooth and offers no foothold, slips into the decomposing area where down pointing hairs prevent escape.



## Heliamphora pitcher

Zone 1 nectar glands

---

Zone 2 Nectar glands. Long hairs  
give difficult foothold.

---

Zone 3 Smooth waxy walls  
in pitcher.  
No Foothold.

---

Zone 4 Down pointing  
hairs retain prey.  
Decomposing area.

Fig. 3.

## Sarracenia pitcher

Zone 2 Numerous nectar glands

---

Zone 3 glands secrete digestive  
enzymes. No foothold for  
insects

---

Zone 4. Long down pointing  
hairs.

Decomposing prey.

---



Zone 1 Nectar  
glands. Short hairs  
good foothold

---

Fig. 4.

Pitcher Plants, Sarracenia, Fig 4.

There are eight species in North America with some having been established in Switzerland and Ireland. Pitcher size ranges from 200 to 700 mm.

This is a significant plant in the bog areas where it occurs, sometimes forming dense stands of thousands of plants with each pitcher containing many hundreds of insects in various stages of decay, actively digesting vast numbers of insects. Among prey recorded are ants, beetles, crickets, wasps, spiders, flies and even small toads.

Nectar is the attractant, the feeding insects being trapped when they venture on to the smooth zone of the wall which offers no foothold. After falling into the fluid below, escape is prevented by long downward pointing hairs. Three of the eight species have clear windows in the lid to rebound flying insects.

An interesting fauna is associated with these plants. Moths of the genus Exyra lay one egg in each pitcher, the larva eating a narrow strip of cuticle round the inside, about 2/3rds of the length of the pitcher from the base. The first breeze folds the pitcher over, forming a shelter. The larva then eats an escape hole and before pupating, eats a drainage hole below the accumulated frass to prevent the fluid drowning it. Larvae of the mosquito Wyeomyia smithii and the fly Sarophaga live in the digestive fluid. They are believed to secrete anti-enzymes to protect themselves.

Cobra Lily, Darlingtonia californica, Fig 5.

This monotypic plant grows in Oregon and northern California. It is very similar to Sarracenia in growth and habit. A noticeable difference is the two nectar secreting lobes which hang below the Cobra-like hood. Prey enters this hood and is trapped in the same way as with Sarracenia. The hood has many transparent windows to trap flying insects.

Tropical Pitcher Plant, Nepenthes, Fig 6.

There are approximately fifty species distributed from Madagascar to South East Asia, southern China to Cape York. The Australian species, Nepenthes mirabilis, which is very variable in appearance occurs commonly in remote swamps on Cape York. A magnificent painting of this species illustrated in Rica Erickson's book, "Plants of Prey" by Mrs. Ellis Rowan in 1891 while she was staying at the Somersot homestead of the Jardines near the tip of Cape York. The painting was acquired by the National Library in Canberra.

This is a very impressive plant, usually a vine with pitchers varying in size depending on species from 18 to 36 cm in length. The trap is formed on an extension of the leaf midrib, which often twines round other plants for support.

## Darlingtonia pitcher

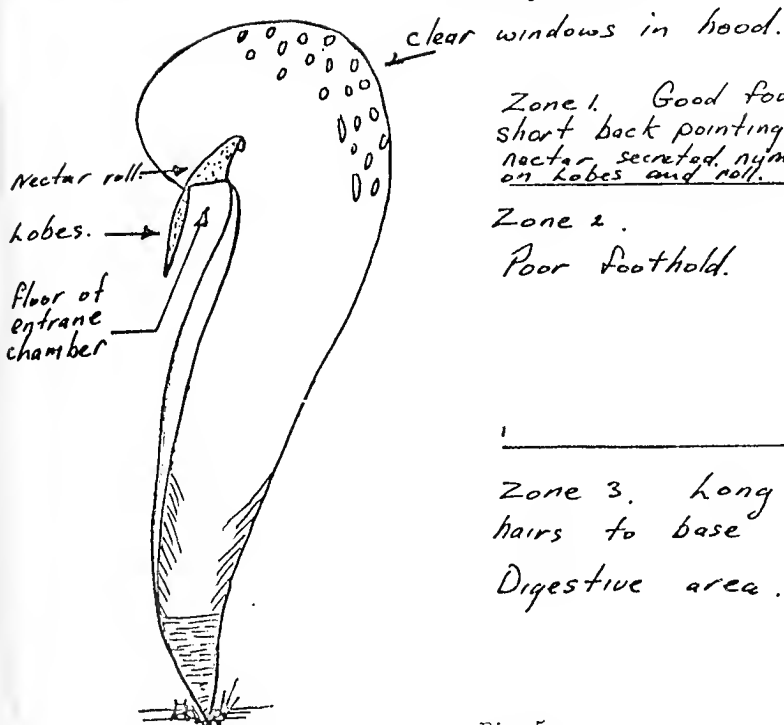


Fig. 5.

## Nepenthes pitcher & lid

Zone 1.  
Numerous nectar glands.

Zone 2.  
Smooth waxy area. no foothold for insects.

Zone 3.  
Digestive area containing enzyme glands

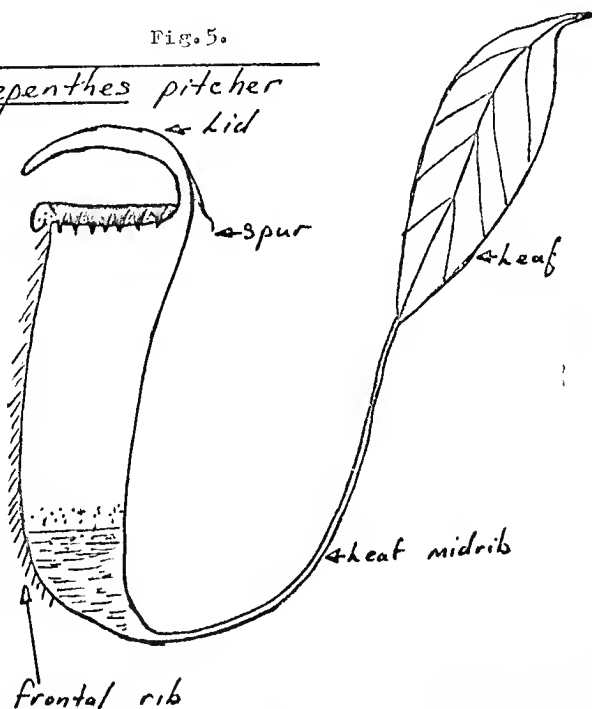


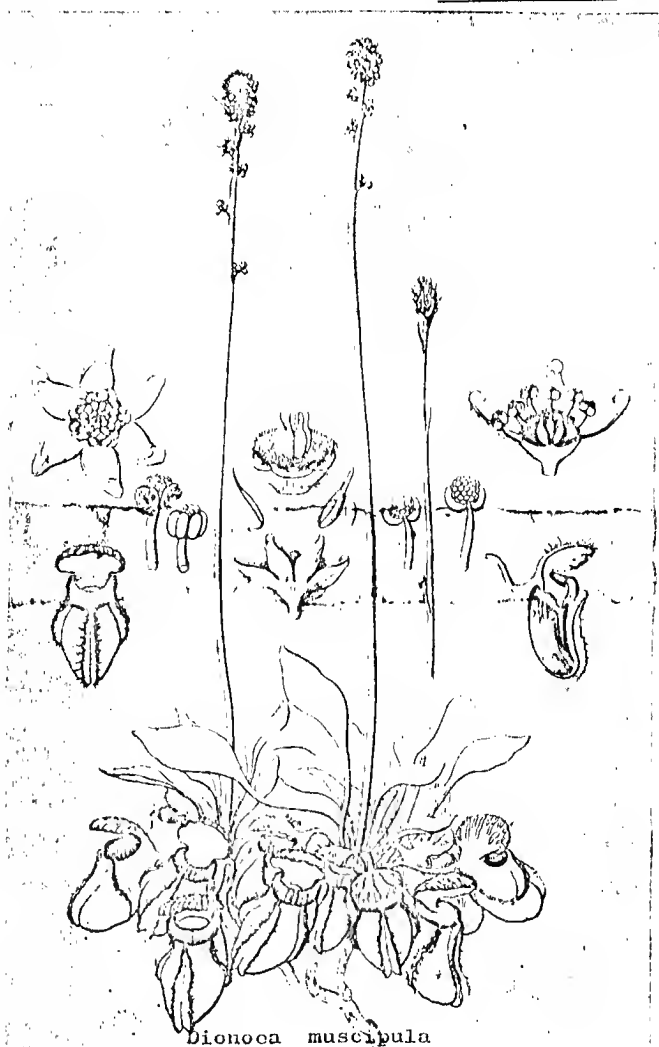
Fig. 6.

Again, the use of nectar is the method of attracting prey, secreted from glands (up to 6000 per sq.cm in some species), situated under the lid and inside the rim of the pitcher. Insects lose foothold on the wall of the waxy zone and fall into the digestive fluid with commonly up to 1000 at any one time in each pitcher.

Some study has been carried out on the digestive fluids of *Nepenthes*. It has been found that an enzyme, endopeptidase, breaks protein into pepsin, peptides cannot be absorbed by plants. It is believed that an amino-peptidase secreted by bacteria in the fluid, dissolves peptides to amino acids required by the plants. As well chitinase dissolves the chitin and benzoic acid secreted, preserving the food from rapid decay. See S.Kurata, "*Nepenthes* of Kuabala"

to be continued.

Fig. 2a





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WRITE FOR CATALOGUE

## CONTENTS

Minutes of Annual General Meeting.....	37.38
Minutes of Council Meeting, 18th. July, 1980.....	39
On the Grapevine.....	39
"Survival Mechanisms in Australian Lepidoptera." by I.F.B.Common.....	40.41
Summary of Presidential Address, "Plants that Prey on Insects" by David Stewart.....	42-48

--ooOoo--

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Dr. Andrew Calder, Messrs. Gordon Burns, David Crosby,  
Ray Manskie, Brian O'Neill, and Ian Watkinson.

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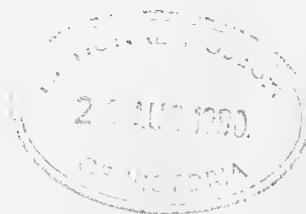
## DIARY OF COMING EVENTS

Friday 22nd August, Visit to Islands off Cape York  
by Shane McEvey.

August 30th or 31st.-Visit to Keith Turnbull Inst.  
Date to be finalised.

Friday 24th. October, Dr. Tim New "Australian Acacias  
in South Africa, Prospect for Biological Control"

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VOL. 10 NO. 5



OCTOBER 1980

# VICTORIAN ENTOMOLOGIST



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Journal of  
The ENTOMOLOGICAL  
SOCIETY of VICTORIA

# THE ENTOMOLOGICAL SOCIETY OF VICTORIA

## MEMBERSHIP

Any person with an interest in Entomology shall be eligible for Ordinary Membership. Members of the Society include professionals amateur and student entomologists, all of whom receive the Society's Journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and study groups, of libraries and of University and departmental staff.

## OBJECTIVES

The aims of the Society are :

- (a) to stimulate the scientific study and discussion of all aspects of entomology,
- (b) to gather, disseminate and record knowledge of all identifiable Australian insect species,
- (c) to compile a comprehensive list of all Victorian insect species and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in Entomology.

## MEETINGS

The Society's meetings are held at Clunies Ross House, National Science Centre, 191 Royal Parade, Parkville, Victoria, at 8 P.M. on the second last Friday of even months, with the possible exception of the December meeting which may be held earlier.

Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with like interests. Forums are also conducted with short addresses by members on their particular interest so that others can participate in the discussion.

## ANNUAL SUBSCRIPTIONS

Ordinary Member.....	10.00 (Aust)	Approx 11.50 (U.S)
Student, Associate.....	5.00 (Aust)	" 5.75 "

## JOURNAL POSTED SURFACE MAIL

No additional fee is payable. Associate Members, resident at the same address as, and being immediate relatives of an Ordinary Member do not automatically receive a copy of the Society's publications, but in all other respects rank as Ordinary Members.

## CONTRIBUTIONS TO THE "VICTORIAN ENTOMOLOGIST"

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of Entomology for publication within the Journal. Contributions are not restricted to Members, but should be responsible and original. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed it would be of great assistance if they were typed on A4 (International quarto) paper, single spaced with double spacing between paragraphs with a margin of 3 cm.

ADVERTISING: Five dollars per page.

October 1980

Victorian Entomologist

Minutes of the General Meeting held at Clunies Ross House  
on Friday 22nd August, 1980.

Members and visitors were welcomed to the meeting by the President, Mr. David Stewart.

Attendance - V. Barrett, A. Calder, P. Carwardine, B. Condron, D. Crosby, M. Hunting, D. Johnson, P. Kelly, M. & "Z" Le Souef, N. & R. Manslie, S. McEvey, T. New, B. O'Neill, N. & D. Stewart, C. Stahl, R. Vagi and C. Wild.

The President welcomed Clyde Wild who after being away from Melbourne for a number of years, happened to be here at the same time as our meeting.

Apologies - J. & G. Burns, L. & K. Dunn, F. Hallgarten and J. & D. Holmes.

Correspondence - has been received as published in the Council Meeting minutes of Volume 10, No. 4, of the Victorian Entomologist with the addition of ECOS, The Convention and the Citizens Energy Enquiry. It was moved by Shane McEvey, seconded by Tim New, that the Correspondence be accepted.

Treasurer's Report - The Treasurer reported that there is a credit balance of \$1015.92 in the General Account and \$260.75 in the Publications Account. It was moved by D. Crosby and seconded by Shane McEvey that the Treasurer's Report be accepted.

Excursions - Peter Carwardine thanked David Stewart for organising the excursion to the Keith Turnbull Institute to be held on Saturday 6th. September. It is hoped that as many members as possible will attend.

Editors Report - The response from members showed that they are more than pleased with the presentation of the Journal, thus proving the value in the purchase of the new typewriter. He stressed that he is always seeking material to swell the pages of the journal.

General Business. "Zoo" Le Souef reported on the most recent trip he and Mary made up north. It was spent mainly, visiting entomological friends among whom were Ian and Jill Common, Max and Barbara Noulds, Graeme Rushworth, Tony Bishop, Grant Miller, Alec Burns the Daniels. They also attended meetings of the Entomological Society of New South Wales and the Entomological Society of Queensland.

Guest Speaker.

The main business of the evening was an address accompanied by a movie film and coloured slides by Shane McEvey. The movie film with sound, told of a trip to the south west region of Tasmania undertaken by the Australian and New Zealand Schools Exploring Society of which Shane was the leader. Much information was gathered in various fields, Shane's interest, naturally, being in entomology. The second part of the address, accompanied by slides, was a most interesting account of his visit to Mt. Adolphus Island and Moa Island, just north of Cape York. There has not been any biological work done at Mt. Adolphus Island, as far as Shane knows the only other work undertaken was anthropological in the early 1900's. His research dealt with the study of the Drosophila population on the island. He answered many questions from interested members. David Crosby proposed a vote of thanks for an interesting and informative account of his trips.

Clyde Wild then addressed the meeting with a short account of his most recent work in Brazil. He has just spent three years there looking for a biological control of parthenium weed. He expressed his great concern for the rapid disappearance of the rain forest. He also spoke about the Queensland Lands Department and the control of cactus.

October 1980

Victorian Entomologist

David Stewart Thanked Clyde for his comments, expressing the hope that at some future date, he might be able to address the Society at length on such a fascinating subject.

There being no further business, the President closed the meeting at 10 P.M.

The next General Meeting will be held on 24th. October with the guest speaker being Dr. Tim New.

--oo00oo--

Minutes of the Council Meeting held at Clunies Ross House  
on Friday, 19th. September, 1980

President David Stewart chaired the meeting which opened at 8 P.M.

Apologies were received from J. & G. Burns, B. Condron, D. Crosby, B. O'Neill, T. New and L. Watkinson.

Minutes of the previous Council Meeting held on Friday, 18th. July, 1980, were passed on the motion of Mary Le Souef and seconded by "Z" Le Souef.

Correspondence has been received from Charles C. Cervone, Tan Clunies Ross Memorial Foundation Dept. of Forestry, Ent. Soc. N.S.W. and the Ent. Soc. Q'land. It was moved by Andrew Calder and seconded by Peter Carwardine that the correspondence be received. Treasurers Report There is a balance of \$996.69 in the General cheque account and \$200.75 in the Publications Account. There are now 58 financial members. The Treasurers Report was accepted on the motion of "Z" Le Souef and seconded by A Calder.

Excursions-Final arrangements are being made for the excursion to Granbourne of Sunday 9th. November.

A letter of thanks is to be sent to the Keith Turnbull Institute in appreciation for their conducting our excursion on the 6th September 1980.

General Business- The Secretary is to enquire into the membership fees in regard to becoming an accredited member of the Sciences Club.

The Council is to write to the National Parks and Wildlife Services of New South Wales to give our views on the proposed legislation regarding the banning of the collecting of certain insects. Moved by Ray Manskie and seconded by Mary Le Souef.. There was much discussion on this very contentious issue. The National Museum is to embark on a fund raising mission with interested clubs and societies being asked to help in the project.

Members are reminded that the December General Meeting is a Members Night with supper following the meeting.

The next Council Meeting will be held on Friday 21st. November, 1980

The meeting closed at 9.40 P.M.

October 1980

Victorian Entomologist

Summary of Presidential Address to the Entomological Society  
of Victoria, June 1980.

Continued

Bladder Worts or Fairy Aprons, *Utricularia*.

Fig. 7

Approximately 200 species distributed world wide, 40 of which occur in Australia. An aquatic plant not strictly speaking insectivorous as aquatic insect larvae would only form a small part of its prey. Traps usually less than 5 mm in diameter. These bladders which float or lie buried in mud are attached to leaf structures which look like roots. The plants grow in shallow water or mud, only the flower stalks appear above water and these can form very dense stands. One species flowering in the Grampians, Victoria during December, 1979 had more than 60 plants per 900 sq. cm. Considering that each plant had many traps, small aquatic invertebrates had little chance of surviving in the 20 to 40 mm water.

The traps have the ability to secrete 90 % of the contained water through the trap walls, against a pressure gradient. When prey touches one of the trigger hairs attached to the hinged trap door, the external pressure implodes the trap door and the rushing water carries the prey into the trap where it is digested.

Pink Fairies and Petticoats *Polypompholyx*.

Fig. 8

There are two species of this aquatic plant occurring in Australia. It is similar to *Utricularia* in many ways but the trap is not active, prey being diverted into the trap entrance chamber by a row of external hairs on the side of the trap. In the entrance chambers, pointing hairs allow the prey to move forward into the digestion chamber but prevent movement back through the entrance.

Water Wheel Plant, *Aldrovanda vesiculosa*.

Fig. 9.

This mono typic aquatic plant has a wide distribution. It is found in Europe, East Asia, Japan, India, Tropical and southern Africa and northern Australia.

This plant consists of a central stem with several regularly spaced radially arranged whorls of 8 leaves, usually, but sometimes less. The trap is situated at the tip of each leaf and is protected by several stiff guard hairs which are believed to protect the trap from being broken by large aquatic organisms swimming past the leaf.

The trigger hairs, which initiate the closure of the trap, are situated inside and in the lower half. When stimulated, the trap closes very rapidly (1/50th sec.) and the interlocking teeth on the apex prevent the prey's escape. The walls of the trap progressively constrict downwards from the apex until the prey is retained in the digestive area in the lower half of the trap

# Utricularia trap

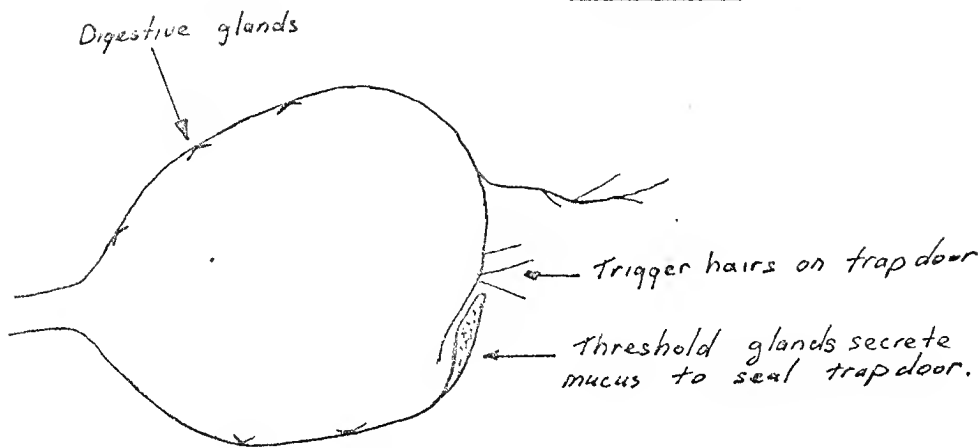
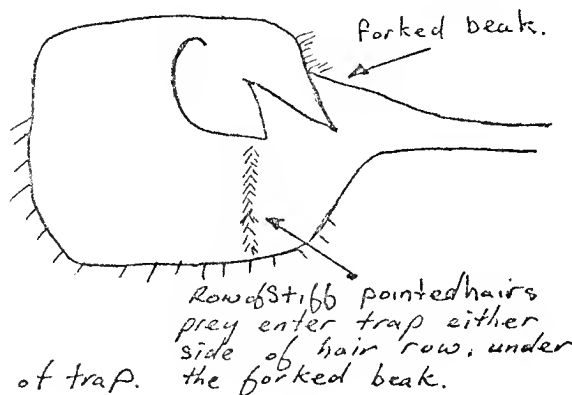


FIG. 7.

## Polypompholyx traps

① external view of trap



② Cut through view of trap.

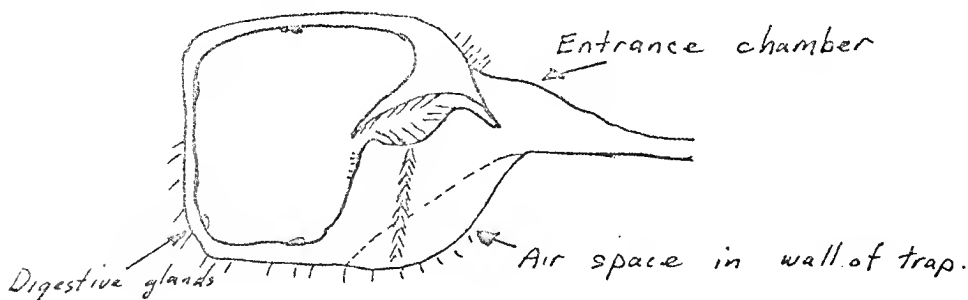


FIG. 8.



Genlisia. Fig. 10.

This is an aquatic plant with 16 species recognised. It occurs in South America, West Indies, Africa and Madagascar. Traps range from 2.5 cm to 15 cm long, consisting of a forked entrance mouth which is twisted to form a spiral. Prey enters this mouth and retreat is prevented by hairs which point towards the digestive pouch, each hair overlapping the one above. Struggles of the prey result in movement up the neck of the trap into the chamber where digestive glands are situated.

Butterworts, Pinguicula.

There are 48 or more species distributed mainly through the northern hemisphere. It has ovaloid leaves which form a rosette and are covered with glands. Stalked glands secrete a sticky fluid which traps and drowns the prey. Other glands on the leaf surface secrete a digestive fluid and absorb nutrients. When prey touches the stalked gland, the edges of the leaf also curl up to form a shallow depression which helps to retain the fluid.

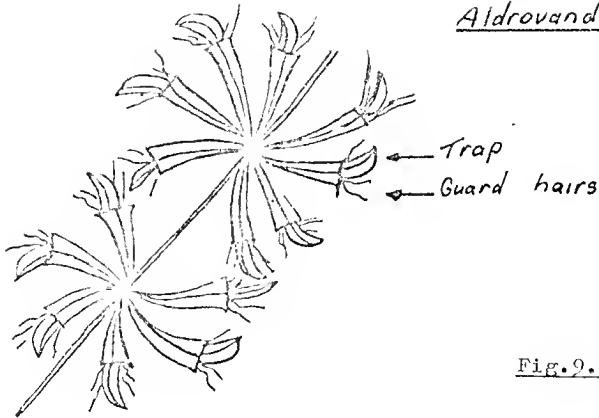
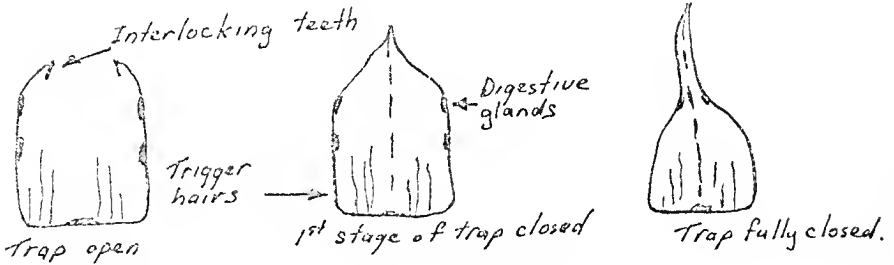
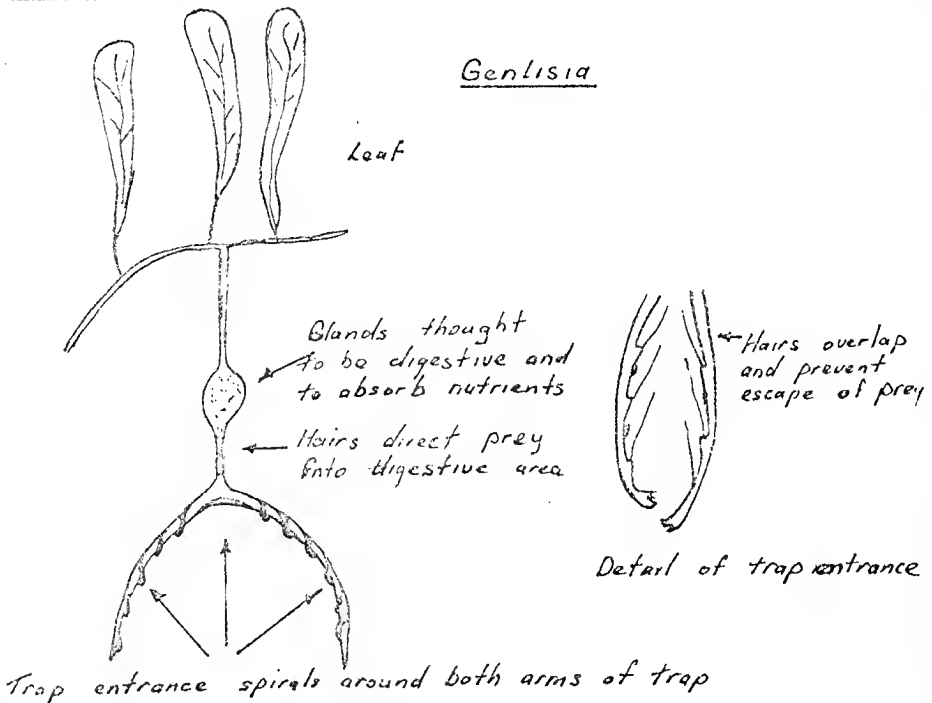
Sundews-Drosera. Fig. 11.

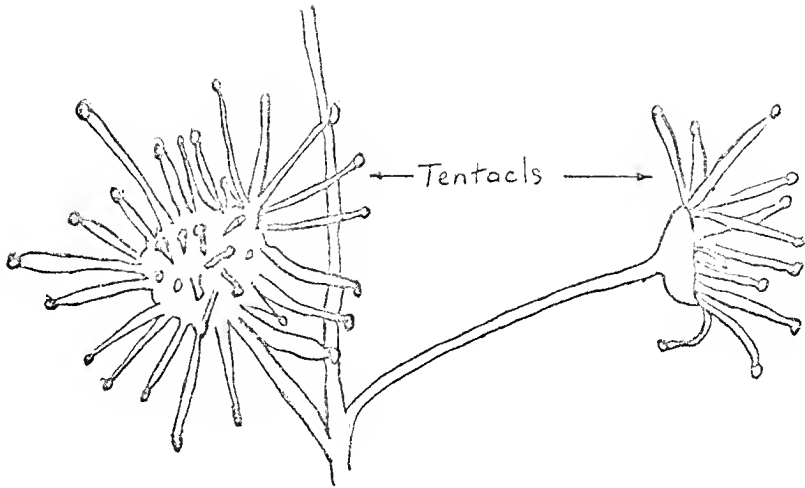
These consist of some 90 species, annuals and perennials, 50 of which occur in Australia. It is distributed through North and South America, Africa, Asia, Europe, Japan and New Zealand.

Droseras are the most significant insect digesting plants in Australia with many species occurring in vast numbers in certain areas. Due to the preference of most species for growing amongst other vegetation, the numbers of the plants in any given locality is not readily observed. In the Gramplains in December, 1978, in an open field adjoining the Hall's Gap Roses Gap Road, many thousands of Drosera peltata were seen and photographed. These plants virtually carpeted several hectares, forming an immense insect trap. Another species that is easily seen in large numbers is the scented sundew, Drosera whittakeri which is common on the Mornington Peninsula. Eighty plants per square metre is frequently found, these plants by their sheer numbers alone must destroy very large numbers of insects. They occur in many forms; they can grow in rosettes, upright or as twining plants on the ground. The trap consists of various numbers of tentacles attached to leaves on some forms, while on others they are attached to leaves to form cups.

Each tentacle has, at the tip, a gland which secretes a sticky digestive fluid which, when stimulated by contact, activates adjacent ones which respond by differential growth at the base. This causes it to turn in towards the prey and make contact. The amount of stimulation, that is, the number of tentacles that respond, is in direct proportion to the activity of the prey. The amount of stimulation required to initiate a response is very minute. Charles Darwin found that the smallest particle to stimulate a tentacle was a fragment of hair weighing  $1/78740$ th of a gram.

The gland at the tip of the tentacle secretes a digestive fluid, absorbing the solution resulting in the breakdown of the prey. Each tentacle can complete this trapping action three or four times before growth is complete. When prey has been trapped they take up to two weeks to resume their original shape.

AldrovandaFig.9.GentisiaFig.10



Droseras. Three forms of trap. Above upright and climbing Droseras. Below left forked sundews. Below right rosette sundews, viewed from above.

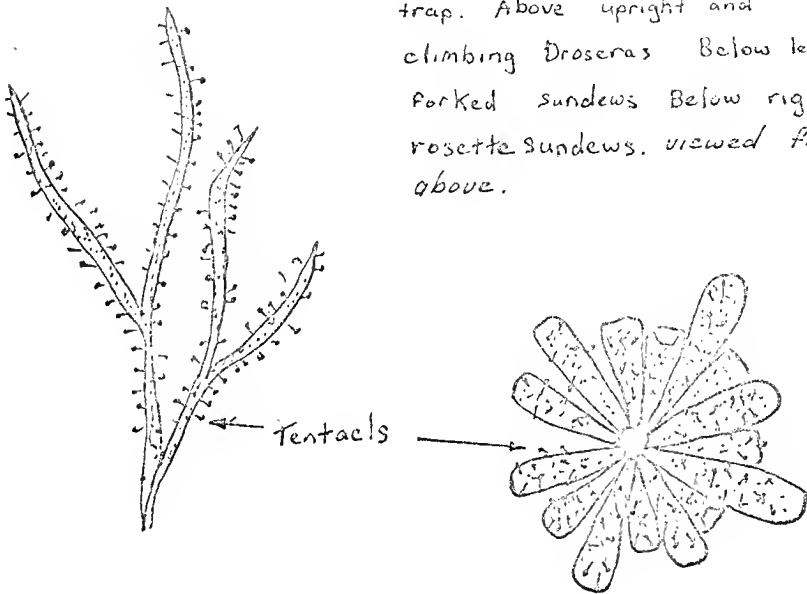


Fig. 11.

A minute predatory bug, specimens of which I have photographed, is about 1.5 mm long; it lives on the stems of Drosera, feeding on the prey that the plant traps. If the bugs are frightened or agitated, they move to the centre of the trap, taking shelter among the tentacles, which do not react.

#### The Rainbow Plant by Bliss.

The two species of this plant both occur in Australia, one in south west Australia and other in the north.

It has passive leaves which do not enfold prey. Two types of glands occur, one that secretes sticky fluid on the end of hairs trapping the insect. In its struggles it comes in contact with the digestive glands situated near the surface of the leaves and stems.

A flightless predatory bug also lives amongst the glands and feeds on prey trapped by the plants.

#### Drosophyllum.

This is a monotypic and rare plant distributed in the Mediterranean area in Spain, Portugal and Morocco. It grows to about 300 mm high, trapping prey somewhat like the forked sundews the difference being that each tentacle does not retain the prey but releases drops of fluid which accumulate on the insect resulting in suffocation. Digestive glands on the stems then secrete a fluid containing various enzymes to break down the prey.

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Sabah National Parks Trustees Malasia.

Carnivorous Plants Newsletter of Aust.

Bullebrook East, West Aust.

Carnivorous Plants

A. Slack 1979

A.H. & A.W. Reed Aust.

Erratum-The name *Dionaea muscipula* on page 48 of Vol. 10 No 4 should read *Cephalotus follicularis*. Ed.

October 1980

97

Victorian Entomologist

ON THE GRAPEVINE.

Notes on the doings of some of the entomologists we met on our recent trip to Brisbane.

Ian and Jill Common have just returned from a relaxing trip to the Capricorn Coast, Ian to now face all the problems associated with the move of the collection to the new building.

Happily away from all the traumas of the move in Canberra Ted Edwards and Jo Cardale will now be revelling in the field work of the lab in Cooktown. They form part of a team conducting a survey of insect populations, firstly in the spring and later, in the autumn in the district.

Andrew Atkins is comfortably settled in his new abode in Cook, busy at CSIRO as a second taxonomic illustrator. Jane Wyllie has been acting as Andrew's honorary assistant in listing skipper foodplants.

We were pleased to be greeted at a meeting of the NSW Ento Society by Tony Bishop still working at the University in Sydney.

While we were in Sydney I got in touch with Graeme Rushworth the energetic secretary of our society in the early days. I was very interested to hear just how his entomological interest began. As a schoolboy, during the war he, with a fellow student, John Kerr, the Brisbane lepidopterist, was billeted with Dr. Waterhouse in Killara. At present he is more than busy writing a monograph on pipe organs. He hopes shortly to be able to again take up his interest in entomology in the field of Neuroptera.

We were also very glad to have the opportunity of discussing matters of mutual interest with Courtney Smithers and David McAlpine.

Max and Barbara Moulds were just as busy as usual with their various activities, thankful that the beetle parts have, at last appeared with their Aust. ent. Mag. Their joint address at the meeting of the Ent. Soc. NSW was extremely interesting, Max giving the introduction, Barbara the trip in the canoes up the Jardine and Max rounding off with a list of species recorded. Since our last visit, Max had purchased the other magnificent Schrader cabinet each with it's beautiful inlay work, real gems of cabinet work.

While we were with Max and Barb, Clarry Chadwick happened to call in. He told us of his continuing work on the list of insects that attack Cycads. He is taking regular samplings at Noraville in the north and seven Mile Beach in the south. He has taken thousands of specimens of some 100 or so species.

Continuing on our way north we called on Ian Morhaus, as keen as ever on his butterflies although the work on his bees to say nothing of his new outboard, seem to take up much of his time just at present.

Again, we spent quite some time with Grant Miller going through his collection with particular emphasis of his series of Acrodipsas. Grant kindly took us out to his Ogyris spots for a most productive day. Barbara was just off to the Atherton Tableland for a short holiday.

October 1980

Victorian Entomologist

ON THE GRAPEVINE.

On the way to Brisbane we tarried just long enough to have a cup of tea and a bit of a yarn with Alec Burns, still in his home at Burleigh. We had a look at some of the drawers of special interest in his collection, still housed in the room downstairs set aside for it. He is thinking of moving back to Melbourne, particularly as recently he was advised by the local police not to be alone at night because of possible attention from district villains. He now has a man to stay the night with him together with a loaded shot gun for protection.

In Brisbane we greatly appreciated the hospitality of Greg Daniels and Alice, now settled in in their very comfortable home in Jamboree Heights. His immaculate study is really something with such a comprehensive library of books, journals and papers. He has two 40 drawer cabinets housing his great collection of robber and hover flies as well as another 48 drawer cabinet of butterflies.

At the museum, we spent a morning with Ted Dahms and Geoff Monteith. Geoff went through his recent Cape York material with us. They are looking forward to the eventual move into the new building, the earthworks of which have just begun. Geoff is busy fitting out a place so that he and Sybil can take the boys out in the bush in comfort.

While in Brisbane we were able to meet and chat with Don Sands and Chris Hagen and various others at the meeting of the Queensland Society with a few words with Pat Marks, just returned from the Congress in Kyoto and John Kerr who has been collecting butterflies over such a wide area of Australia for many years. Margaret Schneider was able to bring us up to date with various matters of interest in her field.

On the local scene here in Melbourne, Dave Holmes is recovering from his operation and back again at his setting boards and preparing for the spring invasion of moths.

Tim Now is attending the First International Symposium on Neuropterology in Graz, Austria but will be back to address the Society's next meeting.

Freddie Hallgarten is much refreshed after a trip to Sydney, returning via Orange and Canberra.

Having followed with interest his progress since coming to our meetings as a schoolboy years ago, it was great to see Clyde Wilde back at our Society again for a visit. It was also good to meet his wife, Christine and little daughter, Gian and to hear something of their experiences in South America.

Coral Stahl was among the exhibitors at the very successful annual exhibition of the Wildlife Art Society of Australasia. It was opened by Graham Pizzey with Charles McCubbin making some of the presentations. Among the rilling through were Ray and Nola Manskie, Andrew Calder and Shane McEvey.

October 1980

Victorian Entomologist

ON THE GRAPEVINE (cont)

Latest news of Gordon and Joy Burns on their round Australia trip is that they are making their way down the coast towards the south west.

Kelwyn Dunn has returned from a school trip to Mackay in Queensland.

EXCURSION TO CRANBOURNE AREA.

DATE - Sunday, November 9th

MEETING PLACE - Depart 10.00 AM from Dandenong Station car park off Foster Street. Train from Melbourne arrives at 9.55 AM for those without their own car.

SECOND MEETING PLACE - Excursion will depart from near Cranbourne Racecourse turnoff on South Gippsland Highway ( South side of Cranbourne ) at 10.15 AM.

MAPS - Recent issues of MELWAY Melbourne Directory Broadbent No. 301, 150 km Around Melbourne.

POLICE - Sladen Street Cranbourne 96 2958, 96 1018  
50 Langhorne Street Dandenong 792 0333

DOCTOR - Auters, 197 High St. Cranbourne 96 2659  
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HOSPITAL - Dandenong & District, David St. 791 6000

ENQUIRIES - Peter Carwardine 509 0622 Office Hours.

The purpose of this excursion is mainly exploratory to see what is in the area, the results of which can be used for the Westernport Watershed Survey & ENTRECS.

Proposed excursions for 1981.

Early February- Eildon/Jamieson.

Early March- Cathedral Range.

October 1980

Victorian Entomologist

KEITH TURNBULL RESEARCH INSTITUTE

Following the most interesting excursion to this institute recently, it might be of interest to those who were not able to attend if some excerpts from the brochures issued at the time of the excursion, were published.

The Keith Turnbull Research Institute (KTRI) was established in 1965 by the Vermin and Noxious Weeds Destruction Board and Department of Crown Lands and Survey. The Board consists of a scientist, a farmer and a superintendent from the Department of Crown Lands and Survey. The main functions of the Institute are to undertake research and to provide technical information, extension services and a training facility for the Department on all aspects of the ecology and control of vermin and noxious weeds.

The Institute is situated approximately 40 km south of Melbourne. The building complex contains offices, laboratories, a technical library, two animal houses, four glasshouses and associated service building, a garage, workshop and store-rooms. An area of approximately 60 hectares is involved, much of which is used for animal compounds and field work on weeds. Two areas, including a lake, are maintained as nature reserves.

Under the Director, there is a staff of 49 divided into 5 groups: Vermin, Research and Development, Biological Control Extension and Education and Administration. Two officers are based at Hepburn and one at Bendigo to facilitate a regional approach to research and expansion.

Research priorities are based on the expected benefits, likelihood of success, cost of research and availability of staff and equipment.

The vermin group research activities include evaluating changes in the distribution of vermin animals and their effect on land usage, whether they should be proclaimed as vermin, developing methods of vermin control and the effects of the control on non target species.

To be continued.



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## CONTENTS

Minutes of General Meeting-22nd August .....	49
Minutes of Council Meeting-19th. Sept.....	50
Summary Pres. Address, cont.....	51/56
On the Grapevine.....	57/59
Excursions.....	59/60

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Andrew Calder, Brian O'Neill and Ian Watkinson.

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### DIARY OF COMING EVENTS

Friday 24th. October-Dr. Tim New-"Australian Acacias  
in South Africa, Prospect for Biological  
Control".

November 9th. Excursion to Cranbourne.

November 21st.-Council Meeting.

December 12th.-Christmas Meeting.

1981-

February-Excursion to Eildon/Jamieson.

March-Excursion to Cathedral Range.

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DECEMBER 1980



# VICTORIAN ENTOMOLOGIST



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Journal of  
The ENTOMOLOGICAL  
SOCIETY of VICTORIA

# THE ENTOMOLOGICAL SOCIETY OF VICTORIA

## MEMBERSHIP

Any person with an interest in Entomology shall be eligible for Ordinary Membership. Members of the Society include professionals amateur and student entomologists, all of whom receive the Society's Journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and study groups, of libraries and of University and departmental staff.

## OBJECTIVES

The aims of the Society are :

- (a) to stimulate the scientific study and discussion of all aspects of entomology,
- (b) to gather, disseminate and record knowledge of all identifiable Australian insect species,
- (c) to compile a comprehensive list of all Victorian insect species and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in Entomology.

## MEETINGS

The Society's meetings are held at Clunies Ross House, National Science Centre, 191 Royal Parade, Parkville, Victoria, at 8 P.M. on the second last Friday of even months, with the possible exception of the December meeting which may be held earlier.

Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with like interests. Forums are also conducted with short addresses by members on their particular interest so that others can participate in the discussion.

## ANNUAL SUBSCRIPTIONS

Ordinary Member.....	10.00 (Aust)	Approx 11.50 (U.S)
Student, Associate.....	5.00 (Aust)	" 5.75 "

## JOURNAL POSTED SURFACE MAIL

No additional fee is payable. Associate Members, resident at the same address as, and being immediate relatives of an Ordinary Member do not automatically receive a copy of the Society's publications, but in all other respects rank as Ordinary Members.

## CONTRIBUTIONS TO THE "VICTORIAN ENTOMOLOGIST"

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of Entomology for publication within the Journal. Contributions are not restricted to Members, but should be responsible and original. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed it would be of great assistance if they were typed on A4 (International quarto) paper, single spaced with double spacing between paragraphs with a margin of 3 cm.

ADVERTISING: Five dollars per page.

December 1980

Victorian Entomologist

Minutes of the General Meeting held at Clunies Ross House  
on Friday 24th. October, 1980.

Members and visitors were welcomed to the meeting by the President, David Stewart.

Attendance-A. Calder, P. Carwardine, D. Crosby, L. Dunn, K. Dunn, F. Hallgarten, J. Hallgarten, D. & J. Holmes, M. Hunting, P. Kelly, "Z" & M. Le Souef, R. & M. Manskie, T. New, B. O'Neill, C. Stahl, D. & N. Stewart, R. Vargi and I. Watkinson.

Apologies-D. Johnson and N. Quick.

Minutes of the previous General Meeting held on Friday, 22nd August 1980, were passed on the motion of T. New and seconded by P. Kelly.

Correspondence has been received as published in the Council meeting minutes (Vol. 10, No. 5) of the Victorian Entomologist with the addition of the entomological section of the RZSNSW R. Hill & Son Ltd., Aus. Ent. Soc. and Sciences Club. It was moved by M. Le Souef and seconded by R. Manskie that the correspondence be accepted.

Excursion- The excursion to Cranbourne is to be conducted on Sunday 9th November when it is hoped that as many members as possible will attend. A report of the excursion will appear in a later edition of the journal.

General Business-The meeting offered birthday wishes to David Holmes. Members also extended best wishes to Andrew Calder who is to assume a post with CSIRO in Canberra in January 1981. During discussion concerning the protection of certain insects in N.S.W., Dave Holmes stated that in a letter he had recently received from Mexico, collecting in Brazil has almost finished as a visiting overseas entomologist will find it almost impossible to enter the country. "Zoo" Le Souef commented on a letter from Graemo Rushworth, now resident in N.S.W. extending best wishes to club members.

Guest Speaker- The main business of the evening was an address accompanied by many excellent coloured slides, by Dr. Tim Now. He spoke about Australian Acacias in South Africa and the prospect for biological control. At the conclusion of his address, Tim answered many questions from members. Mark Hunting thanked him on behalf of those present for an extremely interesting and instructive evening.

The next General Meeting will be held on Friday 12th. December, our Christmas meeting, featuring a movie film by L & K Dunn, under the title of "What Butterfly in That?" Members attending this function are requested to "bring a plate".

The meeting closed at 9.45 P.M.

PROSPECTS FOR BIOLOGICAL CONTROL OF AUSTRALIAN ACACIAS IN  
SOUTHERN AFRICA. \*

T. R. NEW

About 21 species of exotic acacias now grow in southern Africa, and most of these (19) are from Australia. Most were introduced deliberately - as sand stabilisers, for ornamentals, timber, or for trials or plantations for tan bark, and perhaps the first introductions from Australia were A. saligna and A. cyclops to stabilise sand dunes on the Cape Flats about 1845. Since their introduction, however, some species have spread markedly, have invaded pasture and have displaced native vegetation.

Concern over these species - now 'weeds' has led to recent consideration of biological control measures against them. Essentially, this is a 'classical' biocontrol situation, in that much of the land being invaded is of only marginal agricultural value, and the higher costs of other control measures cannot be justified.

The emphasis at present is on trying to find sufficiently specific insect consumers associated with the trees in Australia, for consideration for release in Natal, Transvaal and the Cape.

Eight species of Australian Acacia are currently considered as pests:

a) Phyllodinous spp.

A. cyclops, longifolia, melanoxydon, pycnantha, saligna.

b) Bipinnate spp.

A. dealbata, decurrens, mearnsii.

The aim is not to exterminate the species - as all are still needed for the purposes for which they were originally introduced - but rather to control their aggressive spread and to restrict their distribution. The initial targets are saligna, longifolia and dealbata, and the latter is

\* Summary of address to Entomological Society of Victoria, October 1980.

likely to prove difficult as the closely related gearnsii is still a desirable plant and most insects living on the trees are not sufficiently specific for introduction.

A prime need is that insects, introduced into southern Africa will not attack native acacias - about 115 native spp. of Acacia are found in Africa, and 44 of these are in the south. However, there are not closely related to Australian taxa, and belong (in general) to different subgenera. The Australian spp., including all the phyllodinous species, belong to the subgenus Heterophyllum, which is not naturally found on the African mainland.

The phyllodinous acacias have radiated extensively in Australia, as have the insects associated with them, and it is among these endemic complexes that potential biocontrol agents are being sought. There must then be tested in controlled conditions to ensure that they cannot attack African species.

These potential control agents include:

1) Gall wasps: Pteromalidae: Trichilogaster spp.

These wasps, which are abundant on both bipinnate and phyllodinous acacias lay eggs in developing flower buds. More than 90 per cent of inflorescences may be affected in Australia, and the production of seed thus severely reduced. The species attacking A. longifolia (T. acaciae - longifoliae) appears to be good prospect for reducing population recruitment in that species.

2) Folio-feeding Lepidoptera.

Phyllo-feeding moths are a specialisation of Australian phyllodinous acacias and, in general, the small leaves of bipinnate acacias do not permit mines to develop. Three groups of moths are possible candidates as control agents: Labdia sp. on A. saligna, Epicephala sp. on A. longifolia, and Acrocercops spp. on several host species. All have the potential to destroy considerable amounts of foliage.

### C) Seed-eating beetles.

In Africa, about 50 species of Bruchidae attack Acacia seeds, but none have moved onto Australian species there. Bruchidae are scarce in Australia, and have not been found breeding in acacias. But weevils, especially species of Melanterius, have radiated extensively in Australian species, and cause substantial seed loss.

In addition to these insects, fungus galls (Uromycladium) may severely weaken the tree, but it is not yet known how specific these fungi may be.

Between them, these (and other insect) agents have the potential to attack various parts of the woods and to complement the actions of each other. Classification of their roles is clearly a long-term project, much of which must be done in Australia, and 'success' is very difficult to predict.

### A new distribution record for Trapezites sciron

by R. H. Fisher

A single specimen of Trapezites sciron has been recorded on 4 October 1980 by P. Hudson and D. Levings from Lincoln National Park, Eyre Peninsula, South Australia, some 100 km north of Port Lincoln. Previous records of this species in South Australia are from some 450 km to the east, close to the Victorian border. The specimen was damaged but appeared to resemble the subspecies arenicola more closely than the nominate subspecies, which occurs in south-western Australia and on Rottnest Island. The butterfly was hill-topping and was accompanied by a number of other specimens.

Collecting insects in South Australia's National Parks and Wild Life Reserves is prohibited unless a permit is held.



Since the earliest times, taxonomists have remonstrated the fact that many species of the large Australian genus of chrysomelid beetles, *Paropsis*, lose their colour on drying out.

In 1864 Rev. Hamlet Clark, in describing a number of new species of *Paropsis* sent to him from Australia, appealed to collectors to paint pictures of the insects before killing and despatching to specialists overseas.

In 1899, Blackburn in his monumental "Revision of the Genus *Paropsis*", complains of this loss of colour and the difficulty in identifying these dull, yellowish beetles bearing none of the distinctive colour patterns of the living insects. He remarks, however, that "For the determination of species I find it indispensable to know something of the colours and markings of the living insect, but fortunately this is not an impractical requirement since immersion for 24 hours in benzine (or even water) always revives the colours of a mature specimen sufficiently for the purpose".

In 1901 Weise again revised the group and split it into a number of genera the most important of which are, *Paropsis*, *Paropsisterna*, *Trachymela*, *Chrysophtharta* and *Pyrgo* (now *Pyrgoides*). *Trachymela* are dull black, brown and reddish colours and show little or no loss of colour. Similarly *Paropsisterna* which are generally black with dull red or orange pigmented areas. *Paropsis* are often dull coloured with vague patterns in black and red, a few have bright distinctive patterns which certainly fade but generally have some distinct morphological features making identification possible. *Pyrgoides* are generally yellowish with distinct black markings which do not appear to fade. The really difficult genus is *Chrysophtharta* with a large number of species all with brilliant iridescent colours in reds, blues, greens, gold etc., in distinctive patterns and of the utmost importance for identification. All these colours fade away completely after drying out for a few weeks.

Because of the need to revive colours of old specimens for my own purpose, I decided to make an investigation of the method suggested by Blackburn. I obtained a number of specimens of *Chrysophtharta nobilitata*, one of the most brilliant species. It is a relatively small beetle, approximately 8 mm long, with a very distinctive pattern in bright red, iridescent green-gold and dull blue. These were killed by subjecting them to ethyl acetate vapour for 3 hours and then allowed to dry out under normal room conditions. After 24 hours the colours were only slightly duller than in the live insects but after 4 days the green-gold had lost its iridescence and was a dull yellow, the red was somewhat duller than in life. After 9 days, the pattern was still recognizable only if one was familiar with the live insect, only the red retaining any colour. After 20 weeks the insects were all dull yellowish with vague dark markings, in no way resembling the insect as it appears when alive.

The beetles were then immersed, separately, in a range of solvents, Benzene, Toluene, Xylene, Shell Solvent X2, Acetone, Ethyl acetate, water and water containing 0.01% non-ionic surfactant (Triton X100 ex Rohm & Haas P/L). The Shell Solvent X2 was chosen as it hopefully resembles what Blackburn meant by Benzine. After 4 hours the specimens in water were virtually fully restored in colour, those in water with surfactant were similar, whilst those in the organic solvents showed some restoration of the red but none of the iridescent colour. After 24 hours, the results were much the same, the specimens in water were fully restored and resembled the insects as they were immediately after death. Those in water with surfactant were no better and those in organic solvents were quite unsatisfactory. Despite Blackburn's suggestion of "Benzine (or even water)", water was by far the most effective.

Following this success, specimens of C. nobilitata, 5 years and 12 years old, were used and again water restored almost all the colour, the 12 year old specimen being only slightly less brilliant. Some specimens that had been used were allowed to dry out and they lost their colour in a few days. They were restored again with water. This was repeated 6 times with no diminution of effect. This method has now been used to restore colours of C. varicollis, C. decolorata, C. agricola, C. M-fuscum and many others, up to 12 years old, with great success.

#### References:

- Blackburn, T. "Revision of the Genus *Paropsis*"  
Proc. Lin. Soc. N.S.W. 24 (1897) p.482.
- Clark, H. "Descriptions of new Australian Phytophaga"  
Journ. ent 2 (X1) 1864 p.250.
- Weise, J. "A contribution towards the understanding of *Paropsis* Oliv."  
Arch für Nat. Hist. 67 (1901) p.164.

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#### EXCURSION TO CRANBOURNE.

Thanks to Doroty Johnson, an interesting excursion was arranged to the Royal Botanical Gardens and National Herbarium annexe at Cranbourne on the 9th. November last.

Through the good offices of Mr. Bertram, ranger of the 600 acre reserve, we were escorted to habitats of special interest. In this way members were able to sample some of the insect fauna of the swamplands, dune scrub and forest.

The morning was cool and overcast but the sun appeared later and the temperature rose. Ten members met on the highway and drove to the entrance gate where they were met by the ranger.

With Dorothy Johnson concentrating on a 75 square yard area of tea tree, most others wandered about following their particular interest. Concentrating as she did on a small area, Dorothy was able to record examples of more than a dozen families, mainly Coleoptera. Her list, together with species noted by others will be published in the Journal later when identifications are completed.

In these days with the ever increasing urbanisation of our bushlands, we must be thankful that the authorities have seen fit to set aside such an interesting reserve close to Melbourne. It is to be hoped that further visits by those interested in special groups at different seasons will eventually be able to provide a comprehensive list of the insect fauna of the area.

J.C. Le S.

December 1980

Victorian Entomologist

Book Review.

New Zealand Butterflies Identification and Natural History  
 George W. Gibbs, William Collins Publishers Ltd., Auckland, 1980

Partly in answer to a request for information about a book on New Zealand butterflies in the Circular of the Entomological Section of the R.Z.S. of N.S.W. and partly for our own members, here are some comments on the book in question.

Of the many books on butterflies which are appearing round the world, perhaps one of the most interesting and, indeed, surprising is George W. Gibbs' on New Zealand butterflies. It is surprising in that it is a book of 207 pages dealing with an indigenous fauna of only eleven species and two shared with Australia, three introductions and seven rare visitors.

Very naturally each species is dealt with at length, *Pteris rapae* with 13 pages, *Zizina otis labradus* seven and the 8 species of Lycaenidae run to 34 pages.

It is a beautifully produced book with 197 magnificent coloured illustrations and 63 in black and white. There is a distribution map for each species and 2 general maps of New Zealand.

Only one genitalia is illustrated, that of *Z.o. labradus* but there are a number of SPM illustrations dealing with special features. A number of parasites are photographed in colour. Among the 7 species of moths shown is *Tyria jacobaeae*, the Arctiid we saw recently on our excursion to the Keith Turnbull Institute, released to assist in the control of ragwort.

The prime function of the book is to interest New Zealanders in their butterflies with the wealth of illustrations helping in the identification of each stage of their life history.

George Gibbs is a grandson of the renowned George Vernon Hudson, whose "New Zealand Moths and Butterflies" is to be found on the library shelves of most lepidopterists.

With an easy flow of language, the writer takes his reader with him into the marshes and up to the alps in his search for every detail of the butterfly inhabitants of New Zealand.

J.C. Le S.

December 1980

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<u>Stewart, David and Nola</u>	862705	<i>Mites</i>
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West Rosobud, 3940		
<u>Vari, Ray</u>		<i>Lepidoptera</i>
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Burwood, 3125		
<u>Vardy, B.H.</u>		<i>Lepidoptera</i>
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<u>Watkinson, Ian</u>	7876441	
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Brisbane, Q'land

Nat. Lib of Aust.  
Canberra A.C.T. 2600

Library of NSW.  
Macquario St.  
Sydney, NSW, 2000

Black Mountain Library.  
P.O. Box 109  
Canberra City ACT, 2601

Australian Museum,  
P.O. Box 205,  
Sydney South, NSW, 2000

Pub. Proc. CSR,  
American Embassy  
Canberra ACT, 2600.

National Museum, National Parks Asscn., State Library.

ON THE GRAPEVINE.

Gordon and Joy Burns returned home for a few days from their round Australia trip only to rush off again on the Buprestid trail, this time to central Queensland. We hope, later, to hear something of the success or otherwise of their travels.

Ray and Nola Manskie have just spent a few days in Canberra. Apart from a session at CSIRO with Ian and Ted, they were able to do some spring collecting in the district while they were there. At Mt. Ainsley they were able to take some Acrodipsas. They still seemed to be plentiful, despite the visit a day or two before of Andrew Atkins and Grant Miller to the same spot. While searching for O. a. amata at Cotter Dam, they were surprised to see another net in action not far away and here was Brian O'Neill also spending a few days in the National Capital for the same purpose.

The jet setting Officer in Charge, Butterflies, British Museum of Natural History, Dick Vane-Wright, was in Melbourne recently, staying with Tim New. Exhausted after a very busy list of seminars and lectures around the world, he was more than pleased to be able to relax in the southern habitat of so many butterflies he knew from the specimens under his charge.

In a note from Julie Field, she told of their doings as members of the community at the university in Berkeley, California, immersed on Halloween and making a Californian rug among other activities. Although he had hoped to return home in June, Ross now feels that he might have to wait a bit longer with the research he has in hand taking longer than expected.

The sympathy of members was extended to Nola Manskie on the death of her father which took place recently.

Keith Mateley is still busy with his Buprestids, now having made up a more or less final list of the 92 species taken in the district which will be published shortly. He mentions something of particular importance to all collectors. He has just received the James Hill collection of insects from Kewell, the culmination of the collecting of this well known early naturalist between 1880 and 1925. He had many entomological contacts till his death in 1932. We will look forward to some of the information Keith can gather from the labels left from the specimens consumed by anthrines over the years. This highlights the great importance of collectors arranging for the disposing of their collections while they are able to do so.

Having read his Butterflies of South Australia, one would have thought there would have been little Bob Fisher could add to the subject. However he is still busy filling in the few odd bits of information he missed when his book was written. He enjoyed a day or two with David Crosby and Nigel Quick at Tintinara last month.

Grant Miller, with his special Acrodipsas not, has been travelling from hilltop to hilltop in his quest for this elusive little butterfly. After 3 days in Canberra, collecting and chatting to the folk there, he drove across to the Flinders Ranges, coming back to Melbourne via the Little Desert and the Latrobe Valley.

The editorial staff wishes you a very Merry Christmas and may your nets be active in the coming year.



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## CONTENTS

Minutes of General Meeting-24th October 1980.....	61
Prospects for Biological Control Acacias S.Africa,T.New..	62/64
A New Distribution Record for Trapezites Sciron-R.M.Fisher..	64
The Restoration of Colour in Paropsis Colooplera-P.Kelly.	65/66
Excursion to Cranbourne.....	66
Book Review-New Zealand Butterflies.....	67
Membership List.....	68/71
On the Grapovine.....	72

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--oo00oo--

### DIARY OF COMING EVENTS

December 12th.Christmas Meeting.  
1981.

February 23rd. General Meeting.Members Night

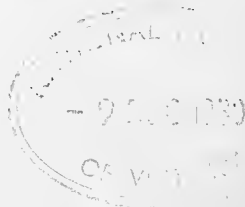
" Excursion to Eildon/Jamieson.

March,Excursion to Cathedral Range.

April Meeting -Date to be discussed because of Easter.

--oo00oo--

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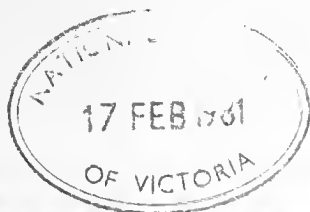






**VOL. II NO. 1**

**FEBRUARY 1981**



# **VICTORIAN ENTOMOLOGIST**



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**Journal of  
The ENTOMOLOGICAL  
SOCIETY of VICTORIA**

# THE ENTOMOLOGICAL SOCIETY OF VICTORIA

## MEMBERSHIP

Any person with an interest in Entomology shall be eligible for Ordinary Membership. Members of the Society include professionals amateur and student entomologists, all of whom receive the Society's Journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and study groups, of libraries and of University and departmental staff.

## OBJECTIVES

The aims of the Society are :

- (a) to stimulate the scientific study and discussion of all aspects of entomology,
- (b) to gather, disseminate and record knowledge of all identifiable Australian insect species,
- (c) to compile a comprehensive list of all Victorian insect species and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in Entomology.

## MEETINGS

The Society's meetings are held at Clunies Ross House, National Science Centre, 191 Royal Parade, Parkville, Victoria, at 8 P.M. on the second last Friday of even months, with the possible exception of the December meeting which may be held earlier.

Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with like interests. Forums are also conducted with short addresses by members on their particular interest so that others can participate in the discussion.

## ANNUAL SUBSCRIPTIONS

Ordinary Member.....	10.00 (Aust)	Approx 11.50 (U.S)
Student, Associate.....	5.00 (Aust)	" 5.75 "

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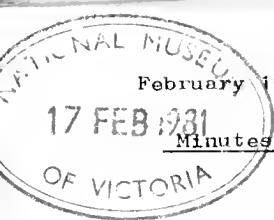
No additional fee is payable. Associate Members, resident at the same address as, and being immediate relatives of an Ordinary Member do not automatically receive a copy of the Society's publications, but in all other respects rank as Ordinary Members.

## CONTRIBUTIONS TO THE "VICTORIAN ENTOMOLOGIST"

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of Entomology for publication within the Journal. Contributions are not restricted to Members, but should be responsible and original. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed it would be of great assistance if they were typed on A4 (International quarto) paper, single spaced with double spacing between paragraphs with a margin of 3 cm.

ADVERTISING: Five dollars per page.



February 1981

Victorian Entomologist

Minutes of the General Meeting held at Clunies Ross House  
on Friday 12th. December, 1980.

— Members and visitors were welcomed to the meeting by the President, David Stewart.

Attendance—A. Calder, P. Carwardine, B. Condron, M. Connor, L. & N. Dunn, K. Dunn, F. Hallgarten, J. Hallgarten, M. Hunting, D. Johnson, P. Kelly, J. C. & M. Le Souëf, R. & N. Manskie, B. O'Neill, C. Stahl, D. & N. Stewart and I. Watkinson.

Apologies—D. & J. Holmes, G. & J. Burns.

Minutes of the previous General Meeting held on Friday, 24th. October, 1980, were passed on the motion of C. Stahl and seconded by "Z" Le Souëf.

Correspondence has been received from Ian Clunies Ross Mem. Fdn, Ent. Soc., NSW, Ent. Soc. Q'land, Dept. of Forestry (Q), National Energy Conference, Uwe J. Pospieszny, C. C. Corvono, T. Morton, The Convention and Edward Lumley (Aust.) Pty., Ltd. It was moved by Ian Watkinson and seconded by L. Dunn that the correspondence be accepted.

Treasurers Report. The Treasurer reported that there was a balance of \$1003.12 in the General Account and a balance of \$260.75 in the Publications Account, with 61 financial members. It was moved by L. Dunn and seconded by B. O'Neill that the Treasurers Report be accepted.

Excursions— More information regarding the excursion to Eildon-Jamieson will be forwarded at the next general meeting.

Editors Report— A request was made for members to list and record any species observed or collected which might be of some interest during the mid-summer collecting season. There is sufficient material on hand for the present.

General Business— President David Stewart on behalf of members present, expressed thanks to Andrew Calder for his interest and regular attendance at the meetings of our Society. Andrew is moving to Canberra early in 1981.

Two excellent colour movie films were shown to members by Laurie Dunn, "What Butterfly is That?", depicting the life histories of various Australian butterflies and "Reflecting on the Past", a fascinating film on the days when the bullocky and his team snigged logs out of the forest. These films were greatly appreciated by members present.

The President wished all present a Happy Christmas and a rewarding New Year. Supper and much conversation was enjoyed at the conclusion of the meeting.

The next General Meeting will be held on February 20th., 1981

PROTECTION OF INSECT SPECIES IN N.S.W.

Printed below is the text of a letter sent by the Society to the National Parks and Wildlife Service of the New South Wales Government, together with the reply received. Proposed legislation seeks to prevent collecting of the following species in N.S.W. (see also Aust. Ent. Soc. Bulletin 1980:108) :

<u>Dryococelus australia-</u>	Lord Howe Island Phasmid
<u>Argynnis hyperbius inconstans-</u>	Australian fritillary
<u>Ornithoptera richmondia-</u>	Richmond birdwing
<u>Tritipnone auceana joanna-</u>	Joanna's swordgrass brown
<u>Euschedon refflesia-</u>	Regent skipper
<u>Zelotypia stacyi-</u>	Bent-wing swift moth
<u>Trioplognathus griseopilosus-</u>	Grey christmas beetle
<u>Anoplognathus viridiaeneus-</u>	King Christmas beetle
<u>Tettigarcta crinita-</u>	Hairy cicada
<u>Arachnoemapa richardsea-</u>	Richard's glow-worm

It is difficult to understand on what basis this anomalous range of species has been selected for 'special treatment'; none can be considered threatened by collecting per se and the general principle of selecting individual species for 'protection' whilst not adequately considering their habitat is, to say the least, questionable. Many ecologists are convinced that the key to successful conservation is habitat management, and, that there are few (if any) proven instances of 'extinction by over collection', even in the Lepidoptera. In Britain several butterflies have certainly become rare (one, Eupulidina arion, extinct) during periods of which many lepidopterists have been active, but habitat alteration is thought likely to be the major cause of such declines. Paragraph 3 of the NSW reply acknowledges that a factor in the selection of species for the above list has been habitat modification. Whilst the desire to protect insects from extinction is laudable, the proposed list is not.

In common with similar legislation in Western Australia and Queensland, the NSW proposals will have the effect of actively deterring amateur entomologists, many of whom have made (and will continue to make in this entomologist-impooverished land) notable contributions to our science. By all means let us know which species may be endangered by collectors, but legislation such as this must, in the long term prove harmful.

The Society believes that a halt to such uncoordinated and unfounded legislation must occur, and stresses the need for a full enquiry into the principles of insect conservation in Australia so that all entomologists may continue to pursue their hobby/profession unhindered by scientifically unsound bureaucracy of this kind.





## The ENTOMOLOGICAL SOCIETY of VICTORIA

8 Smith Rd.  
 Springvale North,  
 Victoria, 3171.  
 21st. November, 1980

Mr. Ian Mahood,  
 Acting Chief of Scientific Services,  
 National Parks and Wildlife Service,  
 P.O.Box N.189,  
 Grosvenor St.,  
Sydney, N.S.W. 2001.

Dear Mr. Mahood,

This Society has recently received advice that the N.P.W. Service had made proposals for the legislative protection of ten Australian insects.

The Council of the Society has considered the proposals at length and now wishes to register its' objection to them on the following grounds :

1. It has generally been proved that human collecting does not threaten the survival of insect species. If numbers become so reduced for this to happen, then, their survival is unlikely anyway. It would be threatened more by natural causes such as bushfires or parasitism.

2. Such legislation is utterly pointless unless it is co-ordinated with realistic and appropriate law to ensure (and enforce) habitat retention even when this applies to private land.

3. The species proposed are not, to the best of our information, threatened species.

4. There is usually great difficulty in obtaining permits for "bona fide research", with reliance on bureaucratic goodwill particularly in respect to amateurs.

5. Once an insect is scheduled, it would be impossible for it to be removed if it is proved to be incorrectly or unwarrantedly assessed.

6. Once legislation is enacted, it is only too easy to add by simple gazettal to the list of protected species as a result of undue pressure from individuals who may be misguided or ill informed as to the insects' true survival situation. Decisions to add to the schedule may be made by people who are not specialists in the particular group involved.

7. Enforcement is difficult and costly. It is quite impossible for every ranger to be an expert in all insect orders and be able to positively identify a particular specimen as being a protected species.

8. It would create a further excuse for some rangers and bureaucratic individuals to harass entomologists who spend much of their lives in the pursuit of knowledge on the subject.

The Society feels that appeals by the Service to the various entomological and natural history societies in Australia for their co-operation in reducing the collection of particular rare species would be a much better alternative to legislation. Most collectors are members of societies and those who are not are well known. Influence could be brought to bear on any offenders.

Although some of our members are working in co-operation with some of your rangers in listing the species under their control, it would be appreciated if you would keep us informed as to the progress of the proposals.

Yours faithfully,

N. Manskie

Secretary

New South Wales Government



## National Parks and Wildlife Service



Mr. N. Manskie,  
Secretary,  
Entomological Society of Victoria,  
8 Smith Road,  
SPRINGVALE NORTH. VIC. 3171

189-193 Kent Street,  
Sydney  
C.P.O. Box 2626  
Sydney, N.S.W. 2001  
Telegrams: Napaw, Sydney  
Telex: AA26034

Our reference: IM:SC

Your reference:

Telephone: 237 6500  
Extension:

Dear Sir,

I refer to your letter of November 21st, 1980 regarding the proposed amendments to the National Parks and Wildlife Act, 1974, to protect certain insect species. I have noted your objections and have replied to these in order.

1. I would dispute the statement that "it has generally been proved that human collecting does not threaten the survival of insect species". In Britain there have been instances where heavy collection of species has reduced populations to the extent that the species was considered rare and extinct over much of its range. In Australia report of localised extinction of the Regent Skipper has occurred because of excess collecting (E. Slater, C.S.I.R.O., pers. comm.).

In addition, species whose populations are restricted because of habitat destruction would certainly be further threatened by heavy collection.

2. The proposed legislation will identify certain species which have reduced populations generally due to habitat destruction. With such a legal status other Acts, including the Heritage Act, may be utilised to place Interim Conservation Orders on their habitat under threat.
3. The species selected for inclusion in the proposed protected schedules are species of special interest either because of their rarity, evolutionary status or commercial interest. In all cases the populations have been drastically reduced by habitat destruction or modification by introduced fauna. The species were selected in consultation with the Australian Museum.
4. Scientific permits are regularly issued for entomological research in both National Parks and Nature Reserves in New South Wales provided that the applicant demonstrates that the work being conducted is non-destructive to the park and will provide relevant information to the scientific/amateur community and the park manager. The same situation will apply to protected insect species. I must stress that this legislation is not designed to limit "bona fide research".
5. Any schedule of protected species under the National Parks and Wildlife Act may be amended by Gazettal. These amendments may include both additions to and deletions from that schedule.
6. Additions to or deletions from the schedule of protected insect

- 2 -

species will be subject to agreement of a board of review which will consist of University, C.S.I.R.O., Agriculture, Museum and amateur entomologists. Decisions of such a nature will neither be ill informed nor misguided.

7. It is agreed that enforcement will be difficult, however, the legislation is principally aimed at limiting commercial collecting and at habitat retention.
8. Most collectors who utilise parks and reserves have licences under the National Parks and Wildlife Act to collect in such areas. Those who do not hold licences are in breach of the Act and Regulations and will continue to be prosecuted. Rangers currently have no jurisdiction over insect fauna outside areas administered by the Service.

Your comments on alternative methods for the conservation of insect species have been noted and will be discussed at the next meeting of the review committee.

Thank you for your interest in this matter and I will keep you informed of further developments.

Yours faithfully,

  
D.A. Johnstone,  
DIRECTOR

A Spring Visit to Cobar, New South Wales.

by J.C. Le Souëf.

Following our winter trip to western New South Wales in 1977, we decided to check the same localities again in the spring. With this in mind we paid a further visit, leaving on the 1st. October, 1980, this time we turned off the Newell Highway at Jerilderie for Griffith, Hillston, Mount Hope and Cobar.

Not far along the Griffith road is the Yanko Creek where we had seen bunches of mistletoe on acacias near the road on the previous trip. Stopping this time we saw one O. amaryllis on the wing with many ants present on the trees but there was not time to investigate further.

At Griffith we went first to the range overlooking the town, a suitable spot for anything hilltopping from the area. There were two D. aganippe circling round above the highest trees but, despite apparently suitable flowers there were only a few of the inevitable N. biocellata and Z. o. lubradus. and one species of small grass moth.

It was to Mount Hope that we were really looking forward to being one of the most productive parts of the whole trip. With little media information on inland conditions, we were not prepared for the drastic effects of the two year drought between Griffith and the Queensland border. We were told that the creeks had not run for that period and even the kangaroos were dying of starvation.

This visit to Mount Hope was a memorable one. As travellers in the back country know only too well, "life was not meant to be easy." But the hazards met with could have been worse. Firstly, a flat tyre outside the tyre repair works at Griffith, secondly a broken windscreen not very far from the little village of Gool-gowie with a suitable replacement.

It was the third event which caused some trauma during the evening that day after settling in at the Mount Hope hotel. For some years I have been collecting centipedes for Lu Koch in Perth, now working on this group. As on many other occasions I caught a five inch specimen racing across the verandah, in my handkerchief. However, this one managed to slip through the folds and bite a finger. There was an immediate burning sensation. Instead of subsiding as I had expected, the pain continued and increased in intensity. Neither acetic ether, shellite or even a disprin had any effect at all. As the evening wore on there were strong muscular spasms and it was six hours before the pain started to subside and I was able to get some sleep. I have since learnt from Lu Koch that the centipede was Ecolopendra morsitans L., so aptly named by Linnaeus, morsus, a stinging, gripe or anguish appearing in translations. It is widespread in Australia and is found in other southern hemisphere continents according to Lu. It is light brown with a black band on the rear end of each segment varying in width.

Although it was a very warm evening, the effect of the drought could also be seen with the very few insects attracted to the MV light, only a few moths, beetles and ant lions.

Going on to Cobarr next morning, there was nothing of interest to stop for along the road with nothing in flower except *Eromophila*. Just before reaching the town of Cobarr, there is a truck leading to the water tanks and lookout. We called here on our way but there were only a few small blues and little of interest.

Apart from this lookout, the only hilltop is a small one about two miles south of the town not far from the road. Here I found *Theclinestus*, *N. biocellata*, a few *L. boeticus*, one unexpected *N. sulphitius* and two of the Agaristid Moths, *P. glycine*. There were many *Z. o. labradus* feeding on the flowers of a small fluffy herb growing among the rocks.

There are many miles of country in the district with mistletoe infested Mulga. Looking at one of the spots we had visited on our previous trip, we found many *Ogyris* flying round and through the trees, feeding on the mistletoe flowers every now and then. From our observations at the time, it would appear that there were about ten *O. amaryllis* to one *O. barnardi*. Surprisingly there were very few whites to be seen, just odd ones every now and then.

The well known, Bonpy Mount on the Nyngan Road proved very disappointing, with only 4 *D. aganippe* hilltopping and a few species of flies among the rocks and stunted shrubs, despite a perfect warm cloudless day.

About 30 miles out on the Ivanhoe road, south west of Cobarr is a patch of sandy mallee country near Mount Buckamtool. Here we had thought that there might be some skippers on the *Lomandra* we had seen before. However in a 20 minutes walk through the mallee I could not find any live *Lomandra* at all. Gosh, it was dry, with only 3 grasshoppers to be seen and two bush flies following me. It was sad to meet a young couple moving their greatly depleted flock of sheep hopefully to a new paddock to search for the little feed there was.

Another disappointment was our visit to Mount Grenfell. It was in an old fence post on our last trip that we had found a very large colony of *Ogyris genoveva*. The post was still there but no sign of larvae or pupae. We had also hoped to see the Mountain Grasshopper recorded from here by Dr. A. D. Clift in 1977. I did manage to find one under a piece of bark but learnt from Bob Moffatt, the National Parks ranger, that they were in some numbers sheltering from the sun in the shade of the many rocks there were about. It was amusing to hear some of the locals refer to them as spiders and complain that they were difficult to kill with fly spray!

We only saw two mallee in flower during our stay in Cobarr. They were in the gully below the water tanks. I took 3 small jewell beetles of two species only and a few other odd insects.

Although there were a number of *Exocarpus aphyllus* near the roadside on the Wilcannia Road, I could not find any ants nests which might house an *Ogyris* colony.

*N. biocellata* could be seen everywhere, often in little clouds on the lee side of flowering widespread *Eromophila sturtii*

It had been our intention to go on to Bourke and spend some time there in the district but, with the state of the country, after six days in Cobar, we started on the homeward journey. On the way back to Mount Hope we noticed some patches of white everlasting but there were only a few Painted Ladies and common blues feeding on them.

Back in Mount Hope we again looked for the small colonies of Ogyris cinoveva we had seen before. After some searching, we found the same hollows with pupae in them but very difficult to get at without cutting the trees down. Nearby Mary came on a colony of pupae and pre-pupal larvae among the debris at the foot of another tree. An adult female flew off as I approached. Most were attached to the trunk of the tree in this case although I did find others pupated in the ant tunnels in the sand. We were soon able to take the few we needed for our purpose in assisting to determine the distribution of the sub-species of this widespread and very attractive butterfly.

On a flowering mallee, I did manage to take another jewel beetle, one of the same species I had taken at Cobar. Apart from horae of noctuids which were everywhere, on the flowers, under bark, in the tree hollows and under sheets of iron or anything else littering the old mine site, there were few other insects seen.

At the LV light that evening, there were a few moths and an interesting grasshopper but with the rising cool breeze, the flight of insects soon ceased.

Continuing on our way home, we took the Conuobolin Road so that we could call at Round Hill, 14 miles east of the township. Round Hill is well known to butterfly people as well as those interested in other groups. The week before there had been an excursion of bird observers from Canberra there to study the bird fauna and slake their thirst at the friendly Mount Hope pub. Andrew Atkins and Jane Wyllie had hoped to join this expedition but were unable to at the last minute. This was a good thing really as there were only a few very common things about, feed on the yellow everlastings on the top of the rise.

The final call of interest on the homeward journey was a stop at the mistletoe at Yanko Creek. There were several Ogyris amaryllis flying about the trees. We were able to take two males and one female for distribution records.

Although we had allowed three weeks for this trip, because of the state of the country, it was limited to eleven days. However, we did achieve our purpose as far as Ogyris was concerned except that we did not record the two rare species, O. idmo and O. otanes which probably occur in this country and provide an excuse for others to continue the search.

Apart from anything else, it was a pleasure to enjoy the hospitality of the people of the inland. In particular we appreciated the interest and assistance of the local fauna ranger at Cobar, Bob Moffat, so keen to learn something of the insect life in the areas under his control.

List of Species Taken or Observed.Pieridae

Eurema smilax-Odd ones at Hillston and Rankin Springs.

Elodina padusa-In small numbers at Cobar.

Delias aganippe-Hilltopping at Griffith, Boppy Mount and occasionally observed flying near Cobar.

Anaphaeis java teutonia-This, the Caper White, was not flying in the large numbers expected, those seen mainly in the vicinity of Cobar.

Nymphalidae

Danaus chrysippus betilia-The Lesser Wanderer was only seen on two occasions, one on Round Hill and the other in Cobar.

Vanessa cardui-The Painted Lady, as one would imagine, was to be found wherever there were suitable flowers, in this case where there happened to be some yellow or white everlasting. These were mainly at Boppy Mount, Round Hill and near Mount Hope.

Vanessa itea-Only one Admiral was seen flying in the Cobar township.

Precis villida calybe-Odd ones flying with the Painted Lady.

Lycaenidae

Ogyris genoveva duaranga-Still a little early for them to be seen flying with the single freshly emerged one disturbed at Mount Hope. Several larvae taken near Mt. Buckambool came through feeding on mistletoe leaves brought back and kept in the frig, supplemented with apple.

Ogyris barnardi barnardi-Flying with O. amaryllis near Cobar.

Ogyris amaryllis amaryllis-Many seen flying through and round the mulga, feeding on the mistletoe flowers.

Nacaduba biocellata biocellata-Extremely common.

Theclinestes miskini miskini (?) -Cobar lookout, small hill south of the town and one on Round Hill.

Lampides boeticus-Several hilltopping on the hill south of Cobar.

Neolucia sulphitius sulphitius-One taken on the same hilltop.

Zizeeria otis labradus-In numbers wherever there were flowers.

Of the other insects taken on the trip, some remain to be identified while others have been passed on to those specialists in particular groups for study.

References

Clift, Dr. A. D., 1977. Insects of the Western Division of New South Wales. Circular Entomological Society of Australia (NSW) Circular 275:20-22.

Common, I. F. B. and Waterhouse, D. F. 1972. Butterflies of Australia. A & R Le Souëf, J. C., 1977. A Ladder in a Help for Ogyris. Victorian Entomologist, 7(6):74, 75.

JEWEL BEETLES OF THE KIATA DISTRICTby Keith Hateley

This list is in addition to those recorded in Vic.Ento.6(3):35  
36,(J.C.Le Souef) and Vic.Ento. 9(6):64,(Joy and Gordon Burns).

<u>Stigmodera amplipennis</u>	<u>Stigmodera kiatae</u>
" <u>amelicollis</u>	" <u>lilliputurna</u>
Merimna <u>atrata</u>	" <u>mustela-major</u>
<u>Stigmodera bakewelli</u>	" <u>maculiventris</u>
" <u>burchelli</u>	" <u>punctiventris</u>
" <u>bogania</u>	" <u>pallidipennis</u>
" <u>aurantiaca</u>	" <u>plagiata</u>
" <u>bifasciata</u>	" <u>parvicollis</u>
" <u>brutella</u>	" <u>pubicollis</u>
" <u>compener</u>	" <u>parryi</u>
" <u>coelectabilis</u>	" <u>rufipennis</u>
" <u>carminea</u>	" <u>robusta</u>
" <u>crua</u>	" <u>recta</u>
" <u>cyanipes</u>	" <u>suturalis</u>
" <u>flavocincta</u>	" <u>scalaris</u>
" <u>flavomarginata</u>	" <u>splendida</u>
" <u>flava</u>	" <u>yarrelli</u>
" <u>fusca</u>	<u>Neo-buprestis australis</u>
" <u>fulviventris</u> (MacI)	<u>Germanica lilliputana</u>
" " var. <u>guttigera</u> (Blkb)	<u>Curis olivinella</u>
" <u>flavicollis</u>	<u>Diadox erythrurus</u>
" <u>guttata</u>	" <u>scalaris</u>
" <u>heros</u>	<u>Melobasis cyanapennis</u>
" <u>hateleyi</u>	" <u>costata</u>
" <u>indistincta</u>	" <u>cupifera prasina</u>
" <u>inconspicua</u>	<u>Cisseis nebulosa</u>
" <u>jaquinoti</u>	" <u>scabrosula</u>
" <u>jucunda</u>	<u>Cisceoides suturalis</u>

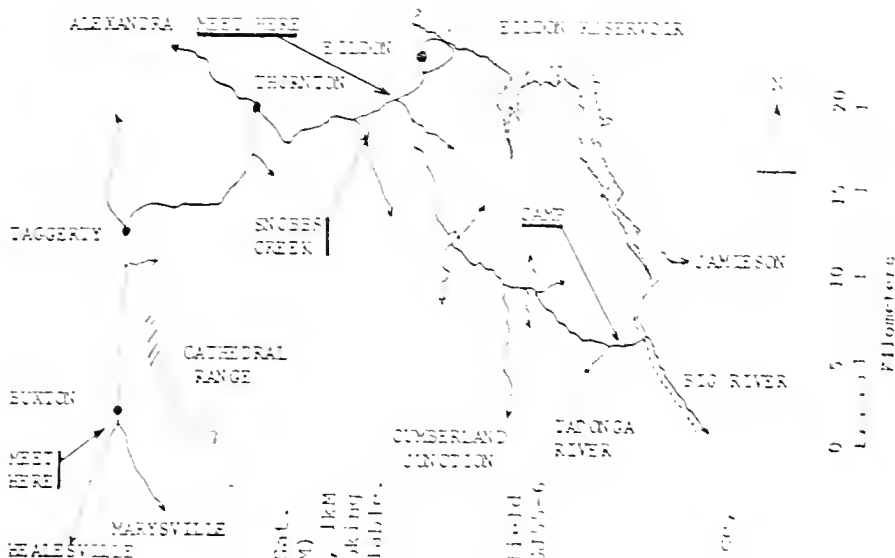


# EXCURSION TO CATHEDRAL RANGE

DATE - Sunday, 15 March 1961  
 MEETING PLACE - Entrance to Silver Stream Trout Farm near 99KM post (2KM before Buxton) at 11.15 AM  
 Cathedral Range approximately 10KM further on.  
 Allow 1 3/4 hours from Kingwood.

## EXCURSION TO EILDON

DATE - 28 February & 1st. March 1961  
 MEETING PLACE - At turnoff 3KM before Eildon, 12 noon Sat.  
 Taponga River is approx. 45KM further (Total 17KM)  
 CAMPING AREA - Picnic Ground at Taponga River crossing, 1km before end of sealed road. Bring all camping & cooking requirements, no facilities other than water available.  
 MAPS - Broadbent #301, 150KM Around Melbourne.  
 Broadbent #211, Eildon & the Acheron.  
 Broadbent Victoria - Eastern Hill.  
 Dept. of Minerals & Energy, Australia 1-100,000 # 8023 Alexandra  
 Dept. of M & E, Australia 1-100,000 # 8123 Mansfield  
 Dept. of M & E, Australia 1-250,000 Warburton #3155-6  
 Police - Hillside Av. Eildon 74 2194  
 Doctor - Marcondah Hwy. Bealceville 62 4422  
 Marcondah Hwy. High St. Eildon 74 2099  
 Wilcox, 225 Marcondah Hwy. H/ville 62 4334  
 Hospital - Eildon Road Eildon 74 2404  
 337 Marcondah Hwy. H/ville 62 4906  
 Food and petrol available at Bealceville and Eildon.  
 ENQUIRIES & TRANSPORT - Peter Carwardine, 909 0622 office, 211 8958 home.



ON THE GRAPPLING

Surely the most blasé entomologist must envy the address appearing on a letter recently from Lax and Barbara Moulds. It read simply "The Bush, North Queensland, 12th. January, 1981". What a wealth of fascinating insect life is at once conjured up in such a place at such a time! After a very long dry period the monsoons came with a vengeance while they were in Cooktown. They reported a record collecting season for Cicadas and Hawk Moths with many interesting records. Greg Daniels and Alice joined them for the trip to Cooktown. Clive Pratt was away at the time, but they spent quite some time going through the collection of the many insects Clive and his wife, Heather, had got together during their stay in Cooktown.

Fit and well and a bit weary after their travels, Gordon and Joy Burns recently returned from their second sortie to the north, this time as far as the Queensland border, returning through the Blue Mountains, the Alos and the Big Desert. The culmination of the trip was the thrill of seeing, for the first time, the giant among the Buprestidae, Stigmmodera heros, flying in some numbers along the roadside in the Big Desert. We'll look forward to seeing some pictures and hearing something of their trips at our April meeting.

Ray and Nola Murskie have returned from a visit to Maryborough in Queensland where they were able to renew acquaintance with Joe Murski, now in his eighties, who was so well known among early collectors.

Bruce Smith has been very busy collecting wasps in the scrublands of Blairgowrie and recording the interesting habits of this rather specialised group.

As his Buprestid list in this journal will show, Keith Hateley retains his great enthusiasm for this very attractive family of beetles. Mary is back again at home after a few days in hospital, her first visit for some time.

While some of us travel far afield in search of specimens, Dorothy Johnson finds a great variety of insect fauna in the bush near her home in Mt. Eliza. She is tending a number of beetle larvae with meticulous care and recording the results of her work.

The sympathy of Society members goes to Andrew Atkins on the recent loss of his father, Frank. Because of his love of nature and continued encouragement of Andrew's interest in butterflies since childhood, we see the work that Andrew is doing in entomology today.

.....

Members are reminded that the subscriptions for 1981 are now due.

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## CONTENTS

Minutes of General Meeting-12th December, 1980.....	1
Protection of Insect Species in N.S.W.....	2-5
A Spring Visit to Gobarr, N.S.W., J.C. Le Souëf.....	6-9
Jewel Beetles of the Kiata District, K. Hately.....	10
Excursions.....	11
On the Grapevine.....	12

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### Councillors

Mesdames Joy Burns, Mary Le Souëf, Miss Coral Stahl,  
Messrs. Gordon Burns, David Crosby, Ray Manskie, Brian  
O'Neill, and Ian Watkinson.

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## DIARY OF COMING EVENTS

February 20th-General Meeting, Members' Night.  
February 28th and March 1st-Excursion to Eildon/Jamieson.  
March 15th-Excursion to Cathedral Range.  
April General Meeting-Date to be decided because of Easter.

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**VOL. II NO. 2**

**APRIL 1981**

22 APR 1981

OF VICTORIA

# **VICTORIAN ENTOMOLOGIST**



Registered for posting  
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**Journal of  
The ENTOMOLOGICAL  
SOCIETY of VICTORIA**

# THE ENTOMOLOGICAL SOCIETY OF VICTORIA

## MEMBERSHIP

Any person with an interest in Entomology shall be eligible for Ordinary Membership. Members of the Society include professionals amateur and student entomologists, all of whom receive the Society's Journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and study groups, of libraries and of University and departmental staff.

## OBJECTIVES

The aims of the Society are :

- (a) to stimulate the scientific study and discussion of all aspects of entomology,
- (b) to gather, disseminate and record knowledge of all identifiable Australian insect species,
- (c) to compile a comprehensive list of all Victorian insect species and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in Entomology.

## MEETINGS

The Society's meetings are held at Clunies Ross House, National Science Centre, 191 Royal Parade, Parkville, Victoria, at 8 P.M. on the second last Friday of even months, with the possible exception of the December meeting which may be held earlier.

Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with like interests. Forums are also conducted with short addresses by members on their particular interest so that others can participate in the discussion.

## ANNUAL SUBSCRIPTIONS

Ordinary Member.....	10.00 (Aust)	Approx 11.50 (U.S)
Student, Associate.....	5.00 (Aust)	" 5.75 "

### JOURNAL POSTED SURFACE MAIL

No additional fee is payable. Associate Members, resident at the same address as, and being immediate relatives of an Ordinary Member do not automatically receive a copy of the Society's publications, but in all other respects rank as Ordinary Members.

## CONTRIBUTIONS TO THE "VICTORIAN ENTOMOLOGIST"

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of Entomology for publication within the Journal. Contributions are not restricted to Members, but should be responsible and original. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed it would be of great assistance if they were typed on A4 (International quarto) paper, single spaced with double spacing between paragraphs with a margin of 3 cm.

ADVERTISING: Five dollars per half page

Minutes of the General Meeting held at Clunies Ross House  
on Friday 20th February 1981

Members and visitors were welcomed to the meeting by the President, David Stewart.

Attendance-R.Besserdin, G. & J. Burns, P. Carwardine, B. Condron, D. Johnson, L. & K. Dunn, F. & J. Hallgarten, M. Hunting, J. C. & M. Le Souëf, R. & H. Manskie, S. K. Smith, C. Stahl, D. & N. Stewart and R. Vagi.

Apologies - D. Crosby, D. & J. Holmes, T. New and I. Watkinson.

The President welcomed our new member, Stephen Smith, whose main interest is in longicorn beetles.

Minutes of the previous General Meeting held on Friday, 12th December, 1980 were passed on the motion of B. Condron and seconded by R. Vagi.

Correspondence has been received from Ecos, Gas & Fuel Corp "Energy Scene", Ent. Soc. Q., (AGM), Ent. Soc. N.Z., Aust. Ent. Soc., Nat. Parks & Wildlife Svce NSW, Miss L. Wilson and Mrs. N. Harrison. It was moved by Mrs. M. Le Souëf and seconded by P. Carwardine that the correspondence be accepted.

Treasurers Report - The Treasurer reported that there is a balance of \$1014.41 in the General Account and a balance of \$260.75 in the Publications Account. Members are reminded that their annual subscriptions are now due. It was moved by C. Stahl and seconded by R. Manskie that the treasurers report be accepted.

Excursions - Peter Carwardine explained the large and detailed maps concerning the excursions for February and March.

Editors Report - The Editor asked for reports and listings from members from their summer collecting and observations. These notes are to be incorporated in the next journal.

Members Night - As this was the format for the February General Meeting, many members spoke or exhibited specimens, the meeting developed into a lively discussion on subjects of mutual interest between members till late in the evening.

P. Carwardine spoke on the numbers of the Skipper, *Ocybadistes walkeri* breeding in his garden in Malvern.

M. Hunting told of his very enjoyable working holiday in the highlands of New Guinea. The purpose of his visit was to help in the repair of an airstrip which had been damaged by pigs and, of course, to collect butterflies. The rainfall in this area was from one to three inches a day. Mark answered many pertinent questions on various aspects of his visit.

April 1981

Victorian Entomologist

J.C. & M. Le Souef visited the Little Desert, briefly, to see for the first time some of the summer emerging beetles the Burns had recorded the week before. Although the long hot dry spell broke the day they left for Kiata, the day spent with Keith was rewarded by the number of species flying and feeding on the mallee. They returned through the Grampians. The effects of the dry season were to be seen here as in most places in Victoria with very few insects about. Short visits were made to Reid's Lookout, Mount William and Hall's Gap with nothing of interest to report.

B. Coniron reported that during the summer, the commonest butterfly in his suburb of Box Hill was the Dinky Swallowtail, *Papilio anactus*.

F. Hallgarten commented on the large numbers of a very small buprestid beetle common on the casuarinas in the Wimmera during October and November.

Mrs. Dorothy Johnson exhibited fungus beetles feeding on decomposed fruit and wood.

R. Manskie showed a case with a wide selection of butterflies taken on a trip to the Daly River, Darwin and the East Alligator River in the Northern Territory in 1980. Of special interest were some *Ogyris* taken in the north west of South Australia, *O. amaryllis parsonsi*.

President David thanked those members who participated in the Members Night.

The meeting closed at 9.30 P.M.

The next General Meeting will be held on Friday, 24th. April, 1981

--oo00oc--

Minutes of the Council Meeting held at Clunies Ross House  
on Friday 20th. March, 1981

President David chaired the Meeting.

Apologies- were received from B. Condon and C. Stahl.

Minutes of the previous Council Meeting held on Friday, 19th.

September, 1980 were passed on the motion of M. Le Souef and seconded by "Z" Le Souef.

Correspondence has been received from Allen Sundholm, Aust. Conservation Foundation, Ent. Soc. NSW, R. Z. S. NSW (Ent. Sec. Mr. C. B. Chadwick). It was moved by P. Carwardine and seconded by J. Burns that the Correspondence be accepted.

Excursions-Following P. Carwardine's report on recent excursions, a decision was made that for future excursions proper evaluation be made for a location to suit the greatest number of members.



Recent excursions have not been well attended but this might, in part, be due to unfavourable weather conditions.

Editor's Report-There is sufficient material in hand for the coming edition of the Journal.

General Business-The following is a list of the meetings for the remainder of 1981:

April 24th. Report and films by J. & C. Burns on their western and central Australian trip.

June 19th. Presidential Address.

August 21st. Guest Speaker.

October 23rd. Guest Speaker.

December 11th. Members night.

It was moved by M. Le Souëf and seconded by T. New that guest speakers be invited to speak at the August and October meetings.

T. New reported that the library belonging to the Society was now adequately housed.

Entrees-D. Crosby stated that the whole matter must be reviewed and coordinated.

New Address for Correspondence- for the Entomological Society of Victoria-

Care of Dr. T. R. New  
Zoology Dept.  
La Trobe University,  
Bundoora, Victoria, 3083.

The next Council Meeting will be held on Friday May 22nd., 1981

--oo00oo--

Please Note !

Owing to printing costs, it is regretted that journals cannot be forwarded to unfinancial members.

BIOLOGICAL CONTROL OF NOXIOUS WEEDS IN VICTORIA.

One of the scourges of farmers and graziers and even the home gardener is the ever present fight against weeds. While there are various means of controlling them including slashing, grazing, herbicides, cultivation, fire and crop rotation, it is the in the investigations into the biological control of some weeds being carried out at the Keith Turnbull Research Station that we are specially interested in here.

Various aspects of the work were explained to members during a visit to the Station on the 6th September last. In a preamble to the tour of the Station, Dr. R. L. Amor spoke on the subject. As most weeds have been introduced from other countries, they often thrive without the normal insect and disease controls of their native country. The object of this biological control programme is to restore a balance by importing specific enemies of the weed in its native habitat. To this end several controls are imported to attack different parts of the plant at critical times in its life cycle, seeds, buds, flowers, etc.

As it seems well nigh impossible to completely eradicate weeds this control does not aim at eradication. Its object, rather is to keep the growth at a low level so that those in question can be regarded as no longer a problem.

There are three main advantages in the successful control. One is the increasing cost of herbicides and labour with, secondly more people are now becoming aware of the possible harmful effects of chemicals on the environment. Thirdly, there are weed infestations which occur in inaccessible hilly bushland areas, forestry plantations and National Parks.

Because of its cost, this method of control is rather limited to weeds that infest large areas and are not related to useful plants found in the same vicinity as the one to be treated. While it is estimated that the cost of the development of a new herbicide would be approximately ten million dollars, taking seven to ten years to produce for market, in Canada the successful introduction of four specific agents to control a weed could cost less than \$1.5 million. The sharing of information between countries helps to defray costs to some degree.

In assessing the need for the biological control of a particular weed, there are a number of steps, eight in all, to be taken before the final decision can be made to release the destructive agent.

Firstly, there is need to know just how serious the weed is and whether there is a possibility of really controlling it. Other factors are the attitudes of those who consider the plant useful as an attractive flower, providing honey for apiarists or feed for stock.

Following this initial, rather specialised work comes the sometimes tedious and sometimes exciting tasks of collecting information on the plant itself and its natural enemies both in Australia and overseas with an extensive study of its taxonomy and ecology. After this comes the survey of the plant in other countries listing its natural enemies and selecting those most suitable to the local climate in Australia.

Then there is the study of the biology of the agents concerned to determine life cycles, climatic requirements, natural enemies and the potential damage of the weed. Tests are then carried out to make sure that the proposed controls do not attack useful plants.

After all these preliminaries comes the time for the introduction of the controlling agent to Australia for rearing and study under quarantine conditions. It is essential that they must be introduced without their natural enemies. The life cycle has to be made to suit the southern hemisphere when it is brought from the northern hemisphere. Before the final mass rearing and release there is an experimental release of small numbers from which the effect of the agents on the weed can be measured in the field.

The critical point in the whole exercise is to determine whether the agent can be introduced without damaging other plants a matter closely studied by the quarantine authorities. The final decision as to the importance or not of the potential biological control rests with the Australian Department of Health.

Here are four programmes at present under weigh at the Keith Turnbull Institute. They deal with Blackberry, Ragwort, Skeleton Weed and St. John's Wort.

#### Blackberry.

Of these, blackberry is probably the best known weed outside the farming community. It infests approximately 600,000 hectares of land in Victoria, nearly half in inaccessible country where herbicides are not suitable. As much money is spent annually on the control of this plant, a research programme is investigating the possibility of introducing agents to suppress the weed.

With nine species of blackberries in Victoria and other related plants used as crops or ornamentals, the project is difficult. Present local enemies have little effect and the insects that attack it in its European habitat also attack other plants. The field of study is very limited, mainly to a rust fungus which has had some success in Chile where it was introduced in 1972.

#### Ragwort.

This is a weed well known in Gippsland and the Otway Ranges where it replaces pastures. Heavy grazing with sheep or the use of herbicides is the normal control. In the 1930's and in 1955-1962, the Cinnabar moth which defoliates the plant in Europe was studied. However, the work was discontinued because of disease and attacks by local predators. In 1976, apparently disease-free pupae were introduced from Canada, the basis of present work. Another possible control is the flea beetle which damages crowns and roots, highly successful in parts of North America.

Skeleton Weed.

Skeleton weed is a bane of the wheat grower, clogging up the harvester and lessening the yield through competition with the growing plant.

In this case, three agents introduced by CSIRO are being tested, one a rust fungus, a second, a gall midge and the third a gall mite.

St. John's Wort.

This is a widely spread pest in bushlands, pine plantations, roadsides and agricultural land in the north east of the State. In the 1940s CSIRO introduced four species of Chrysomelid beetles attacking foliage, another beetle Agrius hyperici for the roots and a midge, forming galls on the leaf buds.

Although there has been little impact in the shade of forest and plantation, there has been a large reduction in agricultural land, partly due to Chrysomelid defoliation.

The members of our Society who attended the excursion to the Keith Turnbull Institute greatly appreciated the trouble the team there went to explain the workings of the Institute in the lecture room and among the glasshouses and research laboratories.

As we heard from our member, Clyde Wild, recently returned from South America and a stint of searching for control agents there, biological control is a long term project of ten years or more which will become of increasing importance in the future.

J.C. Le S.

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Summer Collecting Notes.

Australian members of the Lepidopterists Society must sometimes envy the enthusiasm there is in America of collectors sharing their hobby with others as they do with their Annual Field Summary of collecting and observing state by state in North America.

Obviously, with the great sparsity of collectors here in Australia, such a summary would not be possible. Just as a matter of interest, here are a few notes on weather conditions from members of the Society.

After a very dry couple of years, there was a good wet season in the north with Greg Daniels' car being inundated at Mt. Molloy by the sudden rise of a creek and Max and Barbara Moulds holed up in their van near Cairns with the constant rains. The grass is beginning to dry off again in Brisbane although several recent field trips Greg recently made were marred by rain.

Word from Andrew Atkins in Canberra told of the continuing droughty conditions despite two inches of rain in February.

continued next page-

Book Review.

Scientific and Common Names of Insects  
and Allied Forms Occurring in Australia.

While the common names of insects have been widely known for well over a century in England, it is only in relatively recent times that any attempt has been made to publish a list of Australian insects providing the names as they are known to the public.

Common names were given to many of our insects over the years by authors in various publications but there was no actual list published in one volume. The proposal to publish such a list originated at a meeting of ANZAAS in 1951. After some discussion, a committee consisting of Dr. H.R. Seddon, Messrs. L.W. Miller, E.H. Zeck, J.A. Maddell with Mr. F.B. Gay as convenor was elected. Through the Entomological Society of Queensland in the first place, this committee was able to co-opt the interest of entomologists in Government and other organisations in that State. With the help of many entomologists throughout Australia, the list was eventually published as the Bulletin No. 275 CSIRO Australia, Melbourne, 1955. This Bulletin dealt with nearly 670 species of insects, the first section covering the scientific names with their common name counterpart while the second section was the reverse.

Since the publication of the Bulletin in 1955, two more have appeared, one in 1966 as Bulletin 285 and the other in 1973 as Bulletin 287. In 1978 another Common Names Sub-Committee was elected with Dr. P.B. Carne as Convenor and comprising Drs. M.J. Fletcher, I.D. Galloway and Messrs. L.D. Crawford and E. Highley. With the help of many professional entomologists and one amateur, the latest updated list covering some 1500 species has just been published. As well as the alphabetical lists of scientific and common names, there is a table of abbreviations used for orders and a systematic list with common names.

It is available either from your bookseller or direct from CSIRO Editorial and Publications Service, 9 Queens Rd. Melbourne 3004. The price is approximately four dollars.

J.C. Le S.

cont.

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In their round Australia trip last winter, Gordon and Joy Burns saw the results of the prolonged drought in the West where crops were too short to strip in places.

With Mrs. Harrison in Stanhope in the Goulburn Valley, things were extremely dry too, apart from their irrigated pastures.

Here at Blairgowrie, the usual summer emergences of various insects have, for the most part, been very limited. Further comments on conditions appear in the report of the last General Meeting while a report on the Big River excursion giving details of collecting in that area will appear in the next issue of the Victorian Entomologist.

J.C. Le S.

Obituary.

Harry Borch-30th.July,1942 to 19th.March,1981.

Members who knew him will be shocked and saddened to learn of the sudden death of Harry at Cairns, Queensland, on Thursday March 19th., 1981.

A cabinet maker, Harry, whose childhood days were spent at Cheltenham, Victoria, quickly gained an interest in and knowledge of entomology in the field of Lepidoptera from his father Clarric H. Borch. Although he was shy by nature, Harry realised that there was a need for an organisation for fellow collectors to meet. This led to his involvement in the re-establishment of the Entomological Society of Victoria in 1961.

His early collecting in Victoria was done at Cheltenham Park, the Little Desert, Mt. Donna Buang, Frankston and the Cann River valley. Forever searching for new horizons, Harry made many visits to Burleigh Heads, Queensland. In 1964, while employed by Burns Philp, he moved to Rebnul, New Britain, where he continued to work and pursue his hobby of collecting butterflies.

He carried out an intensive research programme for the Canadian Agricultural Department, collecting Ornithoptera. On moving to the Sepik River district in New Guinea, his interest in Ornithoptera continued, the naming of O.(S.) paradisea borchii Haugan and Low 1974, coming from the work he had done in this field.

The special characteristics that Harry possessed will be forever remembered by those who knew him well.

He is survived by his wife Muriel, two sons and three daughters.

R.C. and N. Manskie.

Obituary.Dr. Jan M.A. Van Groenendael.

The world lost a great Lepidopetrist and quite a few of us lost a fine and sincere friend, when Jan Van Groenendael died on 28th. December, 1980 at the age of 85 years. He had been ill for some time with a heart condition and had been unable to correspond with me for the last two years.

He collected in Holland in his early years and had accumulated seven cabinets of European Lepidoptera which he donated to the Amsterdam University. From his palaearctic collection alone, already thirty five new and unknown butterflies have been determined.

He went to Indonesia over forty years ago to work as a doctor in the Dutch East Indies with his wife Adri, who was also a doctor. While there he started collecting the Asian Lepidoptera. It was while he was there that we began corresponding and became firm friends. There followed over the ensuing years, some thirty in all, the exchanging of hundreds of specimens of Lepidoptera each year.

I was fortunate in having the opportunity of meeting him once, for a brief time, in Melbourne when he was the ship's doctor on the Dutch passenger liner, Oranje. Joyce and the children and I spent a few hours on the ship with him after which I took him to the National Museum for a quick scan of the groups in which he was most interested. This was in the days when Alec Burns was Curator of Insects there.

In the autumn of 1979, Jan was endowed with the first Bronze Medal of Honour (Natura Peperit Scientiam) of the University Institute of Taxonomic Zoology, Amsterdam. A delegation for the University went to Doorwerth to present the medal to Jan, for even then he was not well enough to stand an official presentation at the University. Jan left his vast collection of over 500,000 butterflies to the University of Amsterdam.

He told me once, in correspondence, that he had taken back to Holland over five cubic yards with 1,000,000 specimens. Quite a few of those would now be in collections round the world with collectors with whom he had exchanged.

It gives me a great feeling of satisfaction to have acquired from him, through exchange, a 'mini' collection of Indonesian and New Guinea insects and to have had the pleasure of his friendship over these many years.

He was for some time a member of our Society.

Great men like this can never be replaced. He was the last of a line of true entomologists who pioneered the fields new to science.

David R. Holmes.

April 1981

Victorian Entomologist

ON THE GRAPEVINE.

In answer to the many queries as to how things are going with Andrew Atkins' Skipper Butterflies of the World, word from Andrew is that he has recently heard from the publishers that there has been increasing support for the project. He paid a flying visit to Melbourne to bid farewell to Jane *Wyllie* *now* back home in Middlesex, trying to adjust to the dreary English weather after her stay in Australia. Before she left, Jane and Andrew spent a few days in Tasmania. Despite some cold drizzly weather, they managed to take a few butterflies and some skipper larvae. A highlight was an all to short evening spent with Len and Ruth Cushman.

Max and Barbara Moulds have returned from their three months collecting trip as far as Cooktown in the north and Hughenden and Clermont in the west. They are really elated with the success of their trip which he has described as "fantastic" with much material in cicadas and hawk moths and a number of new species.

David and Nola Stewart are flat out, preparing to leave for points north in a few days. Because of the children, they are taking one of those new wind-up caravans.

If you happen to see a case of exotic butterflies on the lounge room wall when visiting friends, its ten to one that it has come from Dave Holmes. Although he sometimes suffers from scotter's neck from the hours he spends over his spreading boards, he is still making the cases and disposing of them in quite large numbers, each numbered and with a list of the contents on the back of the case.

Recent word from Ross and Julie Field tells of his working frantically towards finishing by the end of July, after a short visit to see the wildflowers of Death Valley, they plan to make their way home "for another good summer of collecting". Surely things should be a bit better for them than we had this last summer!

The ever growing collection of books, papers and insect specimens in the Tindale home at Palo Alto, has necessitated major alterations to house them. Tinnie is now thankful that the carpenter has *finished* the last set of shelves and he can return to his normal routine. In a recent letter he said that the appearance of his paper on the Origin of the Lepidoptera in Keast's 3 volume Ecological Biogeography of Australia has resulted in many requests for reprints. He is working on a monograph of the Hepialids of North America.

The sympathy of Society members will go to our Foundation Member, Clarrie Borch and his family on the news of Harry's sudden death late last month. Those at our Jubilee Dinner will remember the great enthusiasm Clarrie showed when speaking of his early days in collecting. Mary and I spent a day with Harry at Yule Point, north of Cairns in 1978. His uncanny knack of collecting eggs, larvae and pupae was really extraordinary. As Clarrie has said, he was quite the best "finder" of the many collectors he had been out with over the years.

All correspondence now to Dr. T.R. New, Zoology Dept., La Trobe University, Bundoora, Victoria, 3083.



INDEX TO VOLUME NINE OF VICTORIAN ENTOMOLOGIST.

Anon-Poor Autumn Collecting.....	(2):15
" Licola Excursion.....	(2):20
Atkins, Andrew, -Report from England.....	(6):60-64
Book Review-Absolum's Guide to Safe Outback Travel.....	(3):27
Burns, J. & G.A. -A Queensland Trip for Coleoptera...	(2):14-15
" " An Unusual Spring.....	(6):64
Crosby, D.F. -Progress of Entrecs Scheme.....	(6):65-68
Calder, A- Coleoptera on Glenaladale Excursion....	(1):6
Dunn, K.L. -A Collecting Trip to North Queensland...	(3):28-29
" " " " ...	(3):44
" " " " ...	(5):56
Field, J. & R. -Trip to Monterey Peninsula.....	(3):27
Kelly, Peter, -Paropsis Collected of Glenaladale Ex.	(1):5
Le Souef, J.C. -A Social Trip to Cooktown.....	(5):51-53
" Gooding Collection Goes to Canberra.....	(5):48-49
" A Search for Ogyris in Westn. Q'land..	(2):16-19
" Report on Glenaladale Excursion.....	(1):7
McEvey, S.F. -Butterflies of Some Cippisland Rain Forests.....	(2):12-13
Malipatil, M. -Aquatic Insects.....	(3):23-26
Obituary, Ted Harris, (N.Quick).....	(1):8
New, Tim -A New Lepidoptera Journal.....	(1):2
Presidential Comment on Rise in Subs.....	(1):3
Glenaladale Excursion.....	(1):4-5
A Modern Approach to Pest Control.....	(3):30
Stewart, David -Glenaladale Excursion.....	(1):5
Wainer, J.W. -Coleoptera of the Little Desert.....	(4):42-43



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Minutes of General Meeting-20th. February, 1981.....	13
Minutes of Council Meeting-20th. March, 1981.....	14-15
Biological Control of Noxious Weeds in Victoria.....	16-18
Summer Collecting Notes.....	18-19
Scientific and Common Names of Insects.....	19
Obituary-Harry Borch.....	20
Obituary-Dr. Jan M.A. Van Groenendael.....	21
On the Grapevine.....	22
Indexes to Volume Nine and Volume Ten.....	23-24

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Messrs. Gordon Burns, David Crosby, Ray Manslie, Brian  
O'Neill, and Ian Watkinson.

--oo00oo--

### DIARY OF COMING EVENTS

April 24th.-General Meeting, Films by G. & J. Burns.

May 22nd.- Council Meeting.

June 19th.-Annual General Meeting-

July 24th.-Council Meeting.

--oo00oo--

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**VOL. II NO. 3**

**JUNE 1981**



# **VICTORIAN ENTOMOLOGIST**



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**Journal of  
The ENTOMOLOGICAL  
SOCIETY of VICTORIA**

# THE ENTOMOLOGICAL SOCIETY OF VICTORIA

## MEMBERSHIP

Any person with an interest in Entomology shall be eligible for Ordinary Membership. Members of the Society include professionals amateur and student entomologists, all of whom receive the Society's Journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and study groups, of libraries and of University and departmental staff.

## OBJECTIVES

The aims of the Society are :

- (a) to stimulate the scientific study and discussion of all aspects of entomology,
- (b) to gather, disseminate and record knowledge of all identifiable Australian insect species,
- (c) to compile a comprehensive list of all Victorian insect species and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in Entomology.

## MEETINGS

The Society's meetings are held at Clunies Ross House, National Science Centre, 191 Royal Parade, Parkville, Victoria, at 8 P.M. on the second last Friday of even months, with the possible exception of the December meeting which may be held earlier.

Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with like interests. Forums are also conducted with short addresses by members on their particular interest so that others can participate in the discussion.

## ANNUAL SUBSCRIPTIONS

Ordinary Member.....	10.00 (Aust)	Approx 11.50 (U.S)
Student, Associate.....	5.00 (Aust)	5.75 "

## JOURNAL POSTED SURFACE MAIL

No additional fee is payable. Associate Members, resident at the same address as, and being immediate relatives of an Ordinary Member do not automatically receive a copy of the Society's publications, but in all other respects rank as Ordinary Members.

## CONTRIBUTIONS TO THE "VICTORIAN ENTOMOLOGIST"

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of Entomology for publication within the Journal. Contributions are not restricted to Members, but should be responsible and original. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed it would be of great assistance if they were typed on A4 (International quarto) paper, single spaced with double spacing between paragraphs with a margin of 3 cm.

ADVERTISING: Five dollars per half page

Minutes of the General Meeting held at Clunies Ross House  
on Friday April 24th., 1981.

Members and visitors were welcomed to the meeting by the President, David Stewart.

Attendance-G. & J. Burns, P. Carwardine, B. Condron, D. Crosby, L. & K. Dunn, F. & J. Hallgarten, D. & J. Holmes, P. Kelly, J. S. & M. Le Souëf, R. & N. Manskie, T. New, O. Rogge, S. Smith, C. Stahl, D. & N. Stewart and R. Vagi.

Apologies-D. Johnson, S. McEvey and I. Watkinson.

Minutes of the previous General Meeting held on Friday 20th. February, 1981 were passed on the motion of R. Manskie and seconded by J. Burns.

Correspondence has been received as published in the Council Meeting minutes, Vol. 11 No. 2 of the Victorian Entomologist with the addition of The Australian Bicentennial Authority, the Aust. Ent. Soc., Ent. Soc. Q'land, R. Z. N. S. W. (Ent. Sec.) C. E. Chadwick and the Convention. It was moved by P. Kelly and seconded by T. New that the correspondence be accepted.

Treasurer's Report. The Treasurer reported that there is a balance of \$1246.12 in the General Account and a balance of \$260.75 in the Publications Account with 39 financial members. The Treasurer suggested that the subscription for Associate Members be made \$2.50 with discussion on the matter at a later meeting. It was moved by K. Dunn and seconded by T. New that the Treasurers report be accepted.

Excursions-Reports on the two most recent excursions will be published in the next volume of the Victorian Entomologist. Locations are being sought for indoor excursions during the winter months.

Editors Report. The Editor is always wanting material to fill the pages of the Journal.

General Business.-K. Dunn reported that he had received a letter from Andrew Atkins in Canberra in which he sent his regards to Society members.

With Subscriptions now overdue, members who have not paid their subs are reminded that they will not receive the Victorian Entomologist if they are not financial.

Guest Speakers for the evening were Joy and Gordon Burns. Interesting coloured slides and movie film was shown of their most recent trip round Australia. The Burns are forever seeking new jewel beetles to add to their already remarkable collection. Many exciting new collecting spots were discovered on their trip being shown on the films in a well balanced and artistic way.

David Holmes thanked Joy and Gordon on behalf of members present. The Annual General Meeting will be held on the 19th. June, 1981 at 8 P.M. at Clunies Ross House.

OBSERVATIONS FROM ROADSIDE COLLECTING.by Dorothy JohnsonSuper Family CurculionoideaSub Family LeptopinaeFamily JoccinellidaeOreus australasiaAugust 1980/February 1981.

When the August winds arrived and scattered pollen from the Sallow Wattle (Acacia longifolia) causing hay-fever sufferers to reach for their medications, I happily considered this occurrence indicative of an early emergence of Coleoptera. So, hopefully, a good collecting season confronted me. Perhaps, the early blossoming was a guide to a dry summer but time ahead would show if this were to be.

Mount Eliza possesses much natural bush so the area chosen was within walking distance from home. Time was limited to 8-11 a.m./4.30-6.30 P.m. during August 80/Febr.81. The nature strips presented Sallow wattle of various ages and heights, 54 trees seemed to be a reasonable number of to study.

An older tree proved most abundant in insect life and on August 18 Leptopius duponti revealed itself. Slowly scratching one leg with the hook of another, while the stout, strong rostrum sought suitable leaves, portions of which were consumed, leaving an irregular scallop pattern on the outer edges. Flowers were not so readily sought after but here the beetle was easier to collect as the bark brown tubercled elytra revealed itself on the blooms, but more often than not these appealing apterous creatures were found on leaves and stems.

"Piggy backing" was a regular 'occupation' which could be continued for hours, the 'transporter' continuing to feed whilst his 'cargo' remained clasped to his body in thwarted attempts to mate. I found this behaviour occurred amongst other families of Coleoptera both in natural habitat and in captivity.

Size : Male larger than female.

Captivity : 2 males and 2 females kept three weeks and then liberated.

Eggs : Fifteen creamy elongated were found side by side between two leaves. Hatched larvae settled into detritus which was then placed around the collecting tree.

Food preference : Coastal wattle. Cotton wool was saturated with honey/water and wrapped around the stem.

Occurrence : Leptopius duponti appeared on 42 trees out of a total of 54.

Captivity: Various plants were introduced to container but it was found that Sallow wattle was preferred. The life cycle was rather long to complete the study.



Apionidae: Two males and four females.

Late September specimens of a weevil, a species of Apionidae made their appearance. This delicate 3-4 mm patent leather black beetle was not in abundant numbers and appeared to have a smaller territory than the Lentopius,

The long curved rostrum and 'inflated' elytra with no tubercles is fairly characteristic of these small weevils. Not all are black and often one finds light brown specimens. Those observed run rapidly and don't appear to indulge in thanatoses when captured like other weevils do. At a casual glance Apion appeared to be long legged ants and shared with them not only fast motion but also a desire to feed from the exudates of galls on the trees.

Captivity: 5/6 liberated after 14 days.

Eggs : No success in breeding.

Food preference : Exudate of galls, honey and water saturated cotton wool on flowers, leaves and branches, sawtooth wattle.

Occurrence : They appeared on 14 out of the total of 54.

--oo00oo--

#### INVITATION

A small collection of portraits of butterflies and moths of Australasia, by Coral Stahl, will be shown at Manyung Gallery, 1408 Nepean Highway, Mount Eliza, from Sunday, July 5 to Wednesday, July 15. The paintings will be on view from Thursday, July 2. Gallery hours-10.30 AM to 5 PM.

--oo00oo--

#### August Meeting Speaker.

Dr. George Ettershank will speak on How subterranean termites find food on the surface.

SMALLER COLLECTING AT BERMACUI, NEW SOUTH WALES.

by David R. Holmes.

Why go to Bermagui? In the past I have had quite good success in this area. There is mountain collecting as well as rain forest along the coast. It is only two days travelling from Melbourne although it could be done in one long day's driving.

We chose Bermagui because we could take our two silky terriers, who are part of the family, where they are allowed in the caravan park. As well as this, we only had two weeks for our trip and did not want to spend much time travelling.

Brown Mount, south of our camp, in from Bega, is not a long trip. It has vast areas of forest and large sphagnum bogs where butterflies and moths abound. Clyde Mountain to the north, in from Bateman's Bay, was also a reasonable distance for a day's trip. Although much the same country, the collecting is a little different from Brown Mount. Just 'around the corner' from Bermagui is Tilba Tilba and Mount Dromedary, my old stamping grounds where I had caught many interesting butterflies including Signeta tybophora.

On this last trip, we were unaware that there had been a two year drought in that area. It had broken just a few days before we arrived so the grass was just starting to green up. However, there were few butterflies about. I realised after that we should have done our home work and enquired about local conditions before we left. Due to the extremely dry weather, ten inches in two years, the swamps were dry and very few things were flying.

Heteronema mirifica was nowhere to be seen. It was the 16th of February and may have been a little late even for the females. During drought years birds are very hungry depleting the insects even further and so reducing the flying even more by predation.

I went to Brown Mount on 16 th February, 1981. It was a hot day when everything should have been flying even if damaged, but I saw nothing at all at the lookout half way up the mountain. Oreixenica kershawi and two or three species of skippers are usually abundant at this point. At Glen bog a few battered H. cordace were still flying. I collected one Anisynta dominula, one Oreixenica lathoniella, herecus and a few O. kershawi. There were also quite a few Oriesolanus munia but they were not as abundant as usual. I collected a few pairs of H. penelope penelope the females to square up those in my collection.

Cont.

I was pleased to net two day flying hepialids, very small ones that fly in the mountainous areas. There were very few other moths in the bog which is usually teeming with these day flying small, but attractive moths. I can only assume that most things had flown in January and that it was a very short season.

The trip to Mt. Clyde on the 20th. February, delayed many days by rain was even more disastrous as I chose the only day I could before returning home. It was fine on the coast, but as I approached the mountain the last 800 feet was clothed in a dense drizzle. I managed to net two Trapezites symmorus symmorus skippers and had to return to the dry country below as there was nothing else to be seen.

A short trip to Cabbage Tree Creek bridge netted a few Heteronympha paradelpha, with quite a few females among them I saw one Geitoneura acantha acantha but in my excitement, failed to net it. t

Returning towards Bateman's Bay I found a few pupae of Jalmonus evagoras on black wattle which seemed to be very widespread along the sides of the road for many miles.

A few short trips around Bermagui showed that there were very few things flying on the coast. There were a few Candalides xanthopilos, C. simplex, Toxidea parvula, Precis villida and Hypocysta metirius.

Half my holiday was spent indoors because of the rain. I was prepared for this as I had taken along some papored exotics which I was able to deal with while the rain continued.

We stopped at Cann River on the way home, calling in on our old lepidopterist friend, Archie May. Archie, an apiarist, has a fine collection of local butterflies and moths as well as other insects and butterflies from Queensland where he spends some time in the winter months. He has a large glass house filled with ferns and tropical plants and inhabited by a colony of lizards.

On reflecting on our trip I would like to see this country in a normal wet year and compare things that were flying there in February as we have always been a little earlier-towards the end of January. Perhaps this is where we need to correlate our information so that collecting trips might be more productive.

EXCURSION TO EILDON.

Fired with Peter Kelly's enthusiasm with the many hill-topping butterflies he had seen flying on Mount Cobbler and Mount Speculation, Mary and I set off for his camping spot on the Upper King River on the Thursday before the Eildon excursion, February 28th., 1981.

It was a hot cloudless summer's day when we turned off the sealed road to Buller at Mirimbah and took the Mount Stirling Road to the Cobbler Plateau. With Peter's suitably marked Victorian Mountain Tramping Club map, we set off for the high country.

Unfortunately, with no sign posts to guide us, we took a wrong track and had gone for some miles before we realised that we were going in the wrong direction. The driver of a log truck put us on the right track but "helpful" forestry workers gave us other directions again. We eventually arrived at Peter's "Camp No 1" by the stockyard, hot dusty and frustrated. We were more than glad to boil the billy and have a sluice in the chilly Upper King River.

Instead of the expected lush green vegetation, everything was extremely dry with nothing in flower apart from a few odd cancellions. The only butterflies were H. penelope, G. klugii and O. lathoniella, mostly emerged for some time. There was almost a bare sheet with the M.V. light in the evening.

When we left Mansfield, the map showed Mt Cobbler at 46.6 Km from Mirimbah, no distance at all really, but we were not prepared for having to use low gear for most of the trip to the stockyard. For this reason with the petrol gauge showing too low for comfort we turned round before we reached the staircase, several miles from our final destination. With walking club members we met on the road telling of the very dry conditions further on as well, we decided to return towards Mansfield where we had seen some butterflies feeding on mint flowers at the roadside.

From Mansfield we drove to Jamieson and on to the Big River, not far from the excursion meeting place at the Taponga River junction. This very popular camping spot among the trees and just beside the river. With the heat of the day we were more than glad to have a dip in the river. Unfortunately, with the lack of toilet facilities, this was one of the dirtiest camping spots we have met for a long time. However, the spot Andrew Calder had suggested on the Taponga River as our meeting place was much better.

Next morning, after a tour of the of nearby tracks and roads looking for suitable collecting sites, we returned to the meeting place to await any other members who might turn up. The only member to arrive was Peter Kelly. After lunch we joined him in his beating for *Paropsis* but with hardly anything even in his beating tray because of the extreme dryness, we decided to try to find a greener spot where there might be some insects on the wing and somewhere to camp for the night.

With the dry conditions so widespread, it was difficult to think of anywhere to spend the night. Years ago Peter had camped beside the river and under the big gums at Stockman's Reward not far from Marysville, so we made our way there along the very dusty road skirting Mount Torbree to Cumberland Junction.

It was not much better for insects here but was a very pleasant spot with a few O. lathoniella flying and where Peter was able to take a few old specimens too.

On Sunday we returned home, leaving him near Narbethong, busy with his beating tray. On the whole trip the only green area was along the road not far from the Lake Mountain turn off. In a normal season both the high country and the Eildon country would have been very productive and even a month earlier would have seen many more insects about with more things in flower.

J.C. Le S.

#### EXCURSION TO CATHEDRAL RANGE.

A Society excursion to Cathedral Range was undertaken on the 15th. March, 1981, but due to prior reports on conditions in the area, the attendance was poor.

An area along Little River consisting of Acacia dealbata and A. melanoxylon was well infested with the mistletoes A. glandang and A. pendulum.

A few clusters of the recently emerged butterfly, Jalmenus evagoras pupae and unidentified Tussock moth larvae were found on A. dealbata.

One or two Pieris rapae and Heteronympha merope were observed flying and several species of beetles collected.

The weather was good but unfortunately the season has generally been poor as can be seen from this excursion.

Peter Carwardine.

REPORT ON THE BUTTERFLIES, MOTHS AND BEETLES OF THE REGIONNORTH OF LICOLA, GIPPSLAND.MR. D.E.A. MORTON AND A.J. FISHBUTTERFLIES

We collected in two areas during the week. The first area was along the road for 9 km S to 1 km N of the Breakfast Creek site. The second area was on and around Shaw's Creek and adjacent snow plains from 'The Gorge' at the foot of Mt. Reynard to 'Thomastown' (from 5,000 ft to 4,200 ft.). There follows a list of butterflies taken during the week in our two collecting areas with notes and observations on each species. Collecting days, 23-26 January, weather cloudless, still, warm to hot. 24 species taken or observed. This shows that nearly a quarter of all Victorian species (115 in all) were taken by us during this short period.

HESPERIIDAE

Anisgyta dominula drachmophora (Meyrick) 1885, dominula skipper

Common in flowery clearings bordering Shaw's Creek. Several taken.

Dispar compacta (Butler) 1882, dispar skipper

1 male taken 9 km S of Breakfast Creek. Flying with Signeta flammeata

Pasma tasmanica (Miskin) 1889, tasmanica skipper

1 worn male taken in clearing near Thomastown.

Signeta flammeata (Butler) 1882, bright shield skipper

3 males taken 9 km S of Breakfast Creek. Flying with Dispar compacta

Oreispilus munionga munionga (Olliff) 1890, alpine skipper

Males plentiful along Shaw's Creek close to wherever foodplant, Carex appressa, grows. Females less common. One dead female was found impaled on a thorn of a low-growing bush: the larder of a shrike or butcher bird?

PIERIDAE

Delias harpalyce (Donovan) 1805, imperial white

One seen flying high above Shaw's Creek.

Pieris rapae rapae (Linnaeus) 1758, cabbage white

Odd specimens of this introduced pest seen at both localities. First seen in Victoria in 1937 from Europe via New Zealand.

NYMPHALIDAE

Geitoneura acantha ocrea (Guest), 1882, eastern ringed xenica

Along Breakfast Creek area preferring shade offered by dried-up creek-beds. Common.

Geitoneura klugi klugi (Guerin-Meneville), 1830, Klug's xenica

Common along Breakfast Creek area.

Heteronympha merope meropo (Fab.) 1775, common brown  
Mainly females. Plentiful along Breakfast Creek.

Heteronympha solandri solandri, Waterhouse, 1904, Solander's brown  
Quite common in timbered areas around Shaw's Creek.

Heteronympha cordace cordace, (Geyer) 1832, bright-eyed brown  
Fairly plentiful, usually worn, along Shaw's Ck., with C. appressa

Oreixonica orichora orichora (Meyrick), 1885, orichora brown  
On snow plains along Shaw's Creek, clustered round small bushes  
feeding freely on flowers. Common but found only in open treeless  
areas unlike following species.

Oreixenica korshawi korshawi (Miskin) 1876, Korshaw's brown  
In timbered country near 'Thomastown' with previous species.

Vanessa korshawi (McCoy), 1868, painted lady  
Quite plentiful in flowery clearings along Shaw's Creek. Very  
richly coloured compared with lowland specimens.

Vanessa itea (Fab.), 1775, Australian admiral  
Seen along Shaw's Creek, also larvae on Urtica inusa (stinging  
nettle) in well-timbered area near 'Thomastown'.

#### LYCAENIDAE

Jammonus evagoras evagoras (Don.), 1805, imperial blue  
Common but localised on foodplant (Acacia dealbata), preferring  
small bushes and pupating gregariously, attended at all stages  
by hundreds of small black ants (Iridomyrmex sp.). Bushes some-  
times stripped of foliage. Adults mate upon emerging, often  
with wings still limp.

Ogyris olano olano, Waterhouse, 1834, olano azure  
Seen on hilltop 9 km s Breakfast Ck. flying over low eucalypts  
and settling on bare twigs

Pseudodipsas cuprea, Sands, 1965, cuprea ant-blue  
One male taken on hilltop 9 km s of Breakfast Creek, sitting  
high on leaf of small eucalypt.

Noolucia agricola agricola (Westw. & Hwtson), 1851, fringed blue  
Quite common on flowers in clearings along Shaw's Creek.

Zizina otis labradus (Godart), 1819, common grass-blue  
Very common in both areas. High altitude specimens often bigger  
and more brightly coloured than lowland specimens. Same species  
as can be seen on Main Oval at M.G.S. especially in autumn.

Candalides hyacinthinus hyacinthinus (Semper) 1879, common dark blue  
A few taken near foodplant (Cassytha sp.) along Breakfast Creek.

**REFERENCES** : Butterflies of Australia by I.F.B. Common and D.F.  
Waterhouse, (Angus & Robertson, 1972).

#### REPORT ON MOTHS AND BEETLES OF THE REGIONS

We put out a mercury vapour light on the 26th January  
to see what we could attract in the way of insects. The light  
attracted many insects from moths to bull ants. The bull ants  
were preying on the larger moths. Some sort of small fry also  
appeared in great numbers completely covering the sheet in a

cont.

fino mist. However, we only collected and were interested in the moths and beetles. We only managed to classify the moths to families and were quite unable to classify the beetles, therefore the following lists are families of moths and only descriptions of beetles.

MOTHS-LEPIDOPTERA

Hepialidae-Swift Moths

Two large silver striped Hepialidae taken.  
Separate species and genus.

Cossidae - Wood Moths

One very large and badly damaged wood moth taken.

Lymantriidae -Tussock Moths.

Common, three taken, brightly coloured.

Olypipterigidae

Three small metallic blue moths taken. Very common.

Zygaonidae

Three glossy black scaled moths taken.

Lasiecampidae

Stout, hairy and small moths. Three taken. Very common

Anthelidae

Medium, stout and broad winged. Not as common as previous species.

Arctiidae-Footmen, tiger moths.

Tapering antenae, medium sized and stout. Not common and quite damaged.

Noctuidae-Agrotis infusa (Bogong moths)

Most common of all species seen. Medium silver  
In great abundance.  
A further 7 unidentified species were taken.

COLEOPTERA- BEETLES Description only )

"Christmas beetles" -very common, ranging from 2- $\frac{1}{2}$  cm in length.

"Click beetles"

Almost as common as "Christmas beetles". Many taken ranging from large to medium.



Cont.Unidentified 1.

Many small yellow and gold beetles were taken. Of some 6 spooies. Narrow wing cases and glossy gold in colour.

Unidentified 2.

Some small black and larger black glossy beetles were found of a further 6 species.

Unidentified 3.

An interesting light brown coloured beetle of large dimensions also appeared. Its wing cases were ridged with black bumps

References-Australian Moths, I.F.B. Common, Publisher, Jacaranda.

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ON THE GRAPEVINE

Very sadly we are to lose the help and companionship of Ray and Nola Manskio, now in the midst of packing, to take up residence in Maryborough, Queensland, Ray's old stamping ground. No doubt they will continue the sterling work of Joo Manski, who collected there for many years. We will certainly miss the quiet efficiency of Nola who has acted as our Honorary Secretary in recent years.

Ken Walker, recently arrived from Brisbane to take Andrew Calder's place at the National Museum's entomological section at Abbotsford, is settling in at his new habitat. We are looking forward to meeting him at our next meeting.

Centrepiece among the many exhibits at the Ent. Soc. Conference was the first copy of Waterhouse and Common's "Butterflies of Australia". After the tremendous amount of work he has put into both the text and the illustrations, Ian Common must be extremely relieved that it has appeared at long last. We are eagerly looking forward to its arrival in the bookshops in Melbourne.

Just back from a few days at Iron Range, Shano McEvoy is sorting out the insect material he took on the trip. On this occasion he was accompanied by his father, Alan McEvoy, in charge of the ornithological section at Abbotsford, next door to entomology. While Alan focussed his binoculars on the magnificent birdlife there, Shane collecting many Drosophila. As a matter of interest to those who visit the Claudia, the hut so often used by southerners is now occupied by a miner who has pegged a gold claim nearby.

ON THE GRAPEVINE

Even with the magnificent drought-breaking rains across the country, there can be some disadvantages as anyone who has travelled the back country well knows. Our President, David Stewart with Nela and the kids were held up for days out west of Rockhampton, patiently waiting for a creek to subside so that they could continue their trip to the north.

Andrew Atkins paid a weekend visit to Melbourne late last month with news of the doings in the Capital. At long last the new building seems to be occupied and functioning, shortly to be officially opened with a suitable shivoo. He mentioned that Bob Fisher of Adelaide, had recently paid a brief visit to CSIRO with particular interest in some of the skipper drawers.

Andrew Calder has returned from the CSIRO expedition to Cooktown with a quantity of interesting material. Unfortunately the heavy rains at the beginning of the wet season did not continue but results were satisfactory all the same.

Tim New with his busy life is managing to find a little time to devote to settling in to his new home at Wattle Glen. He has recently spent some time lecturing in Mildura also he was able to fit in a couple days browsing through the cabinets in the lab at Canberra.

Word from Geoff Menteith in Brisbane expressed much enthusiasm on the recent Aust. Ent. Soc. meeting up there - a cosy affair with all the bug bods in one comfortable hotel unsullied by the presence of other disciplines.

We are glad to have Tony Morton's report on collecting done by Melbourne Grammar School boys during their recent summer holidays. It is to be hoped that this exercise will enthuse others to do the same thing.

It was pleasing to see that some of our Society members, albeit interstaters, were lucky enough to be present at Dr. J. Evans' delivery of the third Perkins Memorial Lecture before the Queensland Entomological Society recently and hear this outstanding biennial oration.

Our Coral Stahl is holding an exhibition of her delightful paintings at the Manyung Gallery next month as noted elsewhere. We wonder if any of our members will recognise their specimens among the exhibits!

Although his school work is catching up with his days for collecting now, Kelvyn Dunn did manage to take an interesting specimen of the songless cicada in the hills recently.

## Australian Entomological Supplies

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## CONTENTS

Minutes of General Meeting, 24th. April.....	25
Observations from Roadside Collecting, D. Johnson..	26/17
Invitation.....	27
Summer Collecting Bermagui, D. Holmes.....	28/29
Excursions.....	30/31
Licola butterflies and Moths, T. Morton. & A. J. Fish.	32/35
On the Grapevine.....	35/36

## OFFICE BEARERS 1980/1981

President-Mr. David Stewart, 15 Wynne St., W. Rosebud, 3940  
Telephone-(059)-862705.

### Vice Presidents

Mr. Peter Carwardine, 2A Victoria Rd., Malvern, 3144  
Dr. Andrew Calder, National Museum, 71 Victoria Cr.,  
Abbotsford, 3067.

### Hon. Secretary

Mrs. Nola Manskie, 8 Smith Rd., Springvale N. 3171  
Telephone -5463573.

### Hon. Treasurer

Mr. R. Condron, 96 Shannon St., Box Hill Nth. 3129  
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Hon. Editor-J. C. Le Souëf, P.O. Box 2 Blairgowrie, 3942

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### Excursion Secretary

Mr. Peter Carwardine, 2A Victoria Rd., Malvern, 3144  
Telephone-2118958(O.H. 5090622)

### Immediate Past President

Dr. Tim New, Zoology Dept., La Trobe University,  
Bundoora, 3083.

### Councillors

Mesdames Joy Burns, Mary Le Souëf, Miss Coral Stahl,  
Messrs. Gordon Burns, David Crosby, Ray Manskie, Brian  
O'Neill, and Ian Watkinson.

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## DIARY OF COMING EVENTS

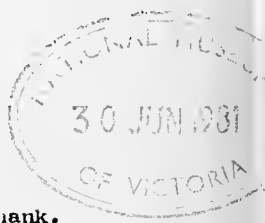
June 19th. Annual General Meeting.

July 24th. Council Meeting.

August 21st. General Meeting. Speaker Dr. Ettershank.

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VOL. II NO. 4

AUGUST 1981

# VICTORIAN ENTOMOLOGIST



Registered for posting  
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Price \$1.

Journal of  
The ENTOMOLOGICAL  
SOCIETY of VICTORIA

# THE ENTOMOLOGICAL SOCIETY OF VICTORIA

## MEMBERSHIP

Any person with an interest in Entomology shall be eligible for Ordinary Membership. Members of the Society include professionals, amateur and student entomologists, all of whom receive the Society's Journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and study groups, of libraries and of University and departmental staff.

## OBJECTIVES

The aims of the Society are :

- (a) to stimulate the scientific study and discussion of all aspects of entomology,
- (b) to gather, disseminate and record knowledge of all identifiable Australian insect species,
- (c) to compile a comprehensive list of all Victorian insect species and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in Entomology.

## MEETINGS

The Society's meetings are held at Clunies Ross House, National Science Centre, 191 Royal Parade, Parkville, Victoria, at 8 P.M. on the second last Friday of even months, with the possible exception of the December meeting which may be held earlier.

Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with like interests. Forums are also conducted with short addresses by members on their particular interest so that others can participate in the discussion.

## ANNUAL SUBSCRIPTIONS

Ordinary Member.....	10.00 (Aust)	Approx 11.50 (U.S)
Student, Associate.....	5.00 (Aust)	" 5.75 "

## JOURNAL POSTED SURFACE MAIL

No additional fee is payable. Associate Members, resident at the same address as, and being, immediate relatives of an Ordinary Member do not automatically receive a copy of the Society's publications, but in all other respects rank as Ordinary Members.

## CONTRIBUTIONS TO THE "VICTORIAN ENTOMOLOGIST"

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of Entomology for publication within the Journal. Contributions are not restricted to Members, but should be responsible and original. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed it would be of great assistance if they were typed on A4 (International quarto) paper, single spaced with double spacing between paragraphs with a margin of 3 cm.

ADVERTISING: Five dollars per half page

Minutes of the Annual General Meeting, Clunies Ross House,19th June, 1981

The meeting was opened by the retiring President, D. Stewart at 8.P.M.

Attendance: Mesdames J. Burns, D. Johnson, M. Lo Souöf, N. Manskie, N. Stewart, Miss Coral Stahl, Messrs. C. Burns, P. Carwardine, R. Condron, D. Crosby, L. & K. Dunn, J. Hallgarten, M. Hunting, P. Kolly, J. C. Le Souef, R. Manskie, T. Now, D. Stewart, R. Vargi and K. Walker.

Apologies: F. Hallgarten, D. & J. Helmes, N. Quick and S. Smith.

Minutes: The minutes of the previous AGM as published in Vol. 10, Part 4 of the Victorian Entomologist were passed (Crosby/Now).

Correspondence: received from the Australian Entomological Society, Entomological Society of NSW, Entomological Society of Queensland, Entomological Society of New Zealand, Royal Zoological Society of New South Wales, Australian Research Publication, Energy Scene, Ian Clunies Ross Memorial Foundation, Mr. C. Borch, Mr. A. Sundholm, The Convention and a phone call from Dr. W. Cochran. Correspondence accepted. (R. Manskie/G. Burns)

Treasurer's Report: current situation, 46 financial members. General Account credit \$1270.06, Publications account credit \$260.75. Report accepted (Carwardine/Now).

Editor's Report: More material is needed for the next issues of the Victorian Entomologist.

Excursion Report: Three outdoor and one indoor excursions were held during the year. Bad weather resulted in poor attendance for most of those.

General Business

1. After some discussion on encouragement of associate members for the Society, the meeting unanimously passed the following motion: 'That the annual fee for associate members will be \$2, this to be reviewed after a trial period of three years' (Condron/Now)

2. Congratulations were extended to J.C. Le Souëf on his award of the Rotary Paul Harris Fellowship.
3. Congratulations were extended to L. & K. Dunn on the success of their film 'Miracle of the Mistletoe', which has recently won the General Section in the Melbourne International Film Festival. The section had about 80 entries, many of which were from overseas.
4. P. Carwardine drew members attention to the impending publication of the revised edition of Butterflies of Australia by Common and Waterhouse.
5. D. Crosby informed members of N. Quick's impending move to Queensland.

Exhibits:

1. R. Condron. A series of moths taken in his garden at Box Hill. They included an unusual specimen of Thalaina puntilinea (unusual in Box Hill) (Geometridae)
2. A pair of the rare Lucanid beetle Phalacrognathus muelleri from Shipton's Flat, Cooktown. (J.C. Le Souëf)
3. D. Stewart. Butterflies and other insects taken on his recent trip.

The President expressed his gratitude to the other officers and council members for their work during the year. J.C. Le Souëf proposed a vote of thanks to the retiring President, which was carried by acclamation. D. Stewart then vacated the chair in favour of the returning officer, L. Dunn who conducted elections for the Society's officers and council members for the following year.



August 1981

Victorian Entomologist

Election of Office Bearers for the Year 1981/1982.President

P.Kelly (J.C.Le Souëf/New)

Vice Presidents

P.Carwardine (M.Le Souëf/D.Stewart)

G.Burns (N.Manskio/Carwardine)

Secretary

T.New (M.Le Souëf/D.Stewart.)

Treasurer

R.Condron (New/Hallgarten)

Editor

J.Le Souëf (Stahl/J.Burns)

Excursions Secretary (

P.Carwardine (New/R.Manskio)

Councillors

D.Crosby (New/Carwardine)

M.Le Souëf (D.Stewart/Condron)

K.Walker (N.Manskio/New)

J.Burns (M.Le Souëf/Crosby)

D.Johnson (J.Le Souëf/Kelly)

J.Hallgarten (J.Burns/Condron)

The above were declared elected

The new President, Peter Kelly, took the chair and invited David Stewart to deliver his presidential Address; 'Travelling in Wait-a while Country'. The talk, accompanied by many colour slides was followed by considerable discussion in which many members participated. P.Kelly, in thanking the speaker, paid tribute to the enthusiasm and hard work which was evident in the talk given.

August 1981

## Victorian Entomologist

David Stewart, on behalf of the Society made a presentation to Ray and Nola Manskie who were due to move to Queensland about ten days after the meeting. He echoed the feeling of all present present in expressing appreciation of the great support for the Society over many years.

The meeting closed at 10.10 P.M.

The next General Meeting will be held on Friday, 21st. August, 1981

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Minutes : Council Meeting , 24th. July, 1981

The President, Mr. P. Kelly, chaired the meeting which opened at 8 P.M.

Present: J. & G. Burns, D. Crosby, J. Hallgarten, D. Johnson, T. New, M. & J. C. Le Souëf, and K. Walker.

Apologies: R. Condron, P. Carwardine and D. Stewart.

Minutes of last Council Meeting (March) confirmed, "Z" Le Souëf/Crosby.

Correspondence: Accepted: Crosby/G. Burns.

Treasurer's Report: 54 Financial members, Credit Balance: Gen A/c \$1349.20, Publications A/c: \$270.50.

Editor's Report: Articles are needed for later copies of the journal.

General Business

1. Programme for remainder of 1981: Dr. Ettershank confirmed for August meeting. October, hopefully, Dr. Morse, a visiting trichopterist from the USA. K. Walker agreed to be a replacement speaker for that meeting. A 'forum night' is to be held in February.
2. Ratification of change in subscription rate for associate members: passed New/"Z" Le Souëf.
3. The President is to be Representative Councillor to the Australian Entomological Society.
4. ENTRECS. D. Crosby gave information on the current state of ENTRECS and answered many queries from Council members. It was emphasised that progress is needed and Pieridae was selected as the immediate group to concentrate effort.
5. T. New drew Council's attention to the proposed wood-chipping programme for the Glasshouse Mountains, Queensland. It was agreed that a letter expressing concern be sent to the Queensland Government.
6. Excursions: G. Burns suggested an excursion for early summer. It was in principle agreed that an excursion be made to Melville Caves area in November.

The meeting closed at 9.40 P.M.

TRAVELLING IN 'WAIT-A-WHILE' COUNTRY.

By D.J.Stewart

This report covers a recent trip through New South Wales to Northern Queensland, the purpose of which was to gather information on the pollination of Australian Cycadacea by weevils, to collect cycad seeds and to collect fossils.

Studies carried out by the Fairchild Tropical Gardens in Florida have revealed that weevils play a role in the pollination of Zamia and that Australian Macrozamia and African Encephalartos cultivated in the U.S.A. appear to lack pollinators. Pollen covered weevils are commonly seen crawling through female cycad cones in the African Encephalartos species growing in their habitat.

This trip revealed that weevil larvae are common in the old male cones of Macrozamia species that cone regularly but are rare or absent in cones of the species that cone infrequently. This latter group consists mostly of the Parazamias illustrated in Fig.2

Our trip started on the 29th. April 1981, normally a fairly dry time of the year but we were to encounter unusual rains throughout Queensland.

The first location for Cycads was Bermagui where Macrozamia communis is found in large numbers. Cones can be found in the stands or these plants each year with seed fertility usually high. All male cones examined contained numerous weevil larvae and it appeared that they had pupated in the pith of the cone stalk. We went on to Dubbo where there was a very limited stand of M.secunda (sect. parazamia) occurs. A fire through the area had induced many of the plants to cone. No weevil larvae could be found and seeds collected from scattered plants were all infertile although those taken in close proximity to other plants had about 50% fertility. Predation by kangaroos is a contributing factor to the lack of young plants in this area. Those animals eat the fruit and discard the seed but with the drought conditions large numbers of the seeds were pierced by the roos incisors. It has been observed that roos are effective in the distribution of several cycad species over short distances.

Travelling on, we camped outside the Warranbungle National Park in very cold and wet conditions. The Hopliid moth, Trictena argontata, was attracted to the light that night in some numbers. Moving on again, Eucema smilax was taken north of Roma where many were observed. It was here that we were able to spend several pleasant hours collecting petrified wood which was common in the district. Going through the Carverven Ranges, we were able to examine the cycad, Macrozamia mooroi and found that the old male cones contained many weevil larvae. M.moorei is a prolific seeder with up to five cones being found on a female plant

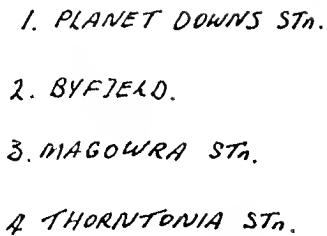


FIG 3 MAP OF LOCATIONS VISITED  
NOT TO SCALE

August 1981

Victorian Entomologist

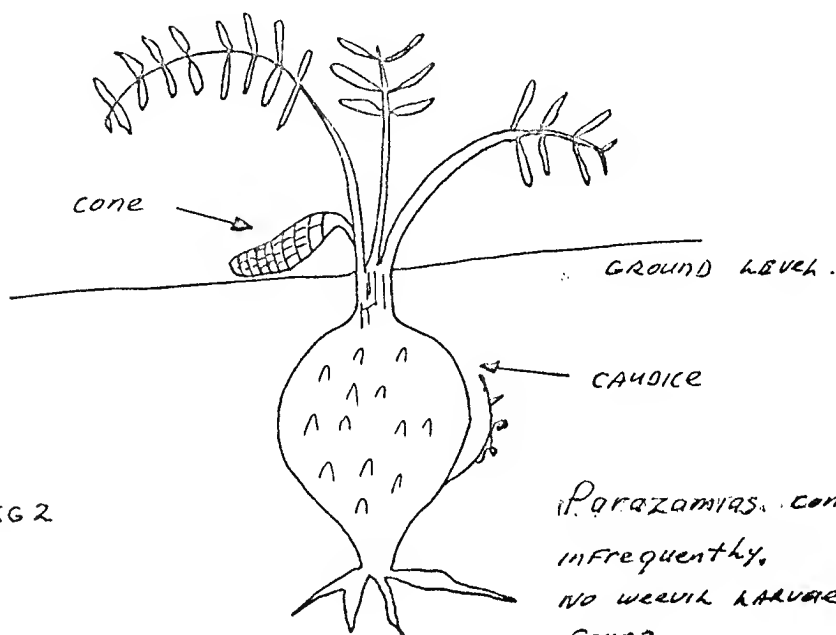
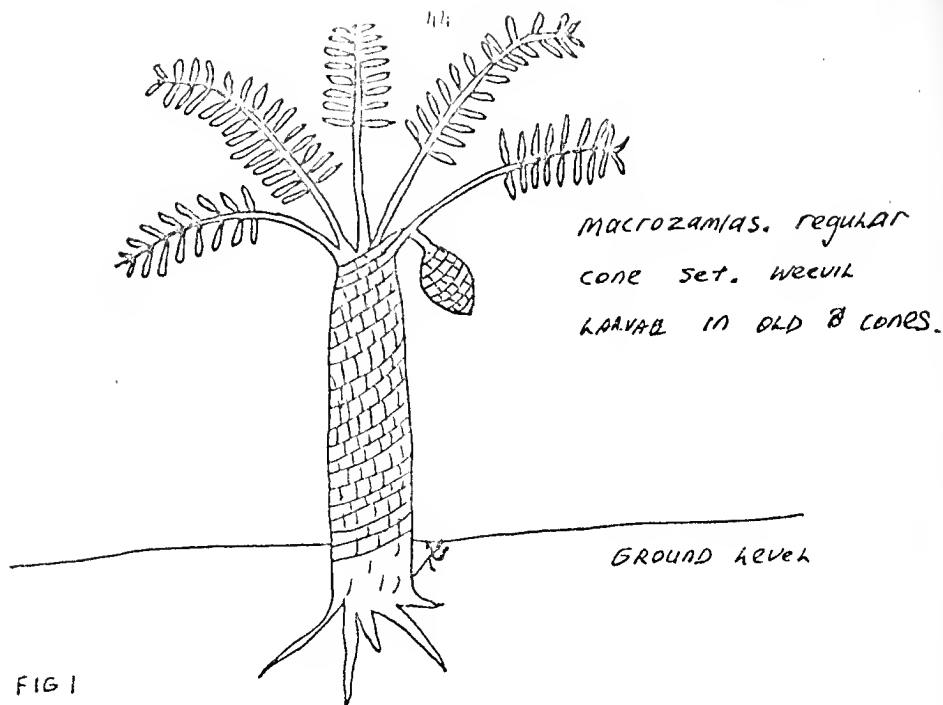
The morning after the rain stopped large numbers of butterflies appeared, the following being taken :

Appian paulina ega  
Acraea andromacha andromacha  
Cressida cressida cressida  
Catopsilia gorgophona gorgophona  
Dolioschalia bisaltide australia  
Delias argenthona argenthona  
Danaus hapatus hamatus  
Danis hymctus taygetus  
Euploea tulliolus tulliolus  
Eurema hecabe hecabe  
Hypolimnas misippus  
 " alima lamina  
 " bolina norina  
Hypocysta motirius  
 " adianto adianto  
Melanitis leda bankia  
Mycalesis terminus terminus  
 " perseus perseus  
Junonia villida calybe  
Polopidas lyelli lyelli  
Tagiades jopetus janetta (adding considerably to its  
Ypthima arctoa arctoa distribution)

Most of these were taken in the morning after the rain had ceased while later in the day and next morning they were dispersed and fewer were to be seen.

The floodway had subsided sufficiently for us to cross after six days and we were able to continue our trip to the north. We drove on through Bowen and Ingham to Tully. Here were very interested to be able to observe a spangled drongo (Dicrurus bracteatus) remove a fledgling Indian mine from its nest in one of the main streets of the town and partly consume it. On the way to Cairns we had the pleasure of seeing several Papilio ulysses joosa. On our day trip to Green Island we were disappointed to see that it had noticeably deteriorated since our last visit in 1972.

Leaving Cairns via the Atherton Tableland we headed for Normanton in the hope of locating areas of Cretaceous sediments exposed after the erosion of the wet season. On the road to Normanton our first find was a huge fossil deposit of shale containing trace fossils (networks of small burrows). Threatening rain clouds caused a hurried trip on to Normanton, but the rain caught up with us 20 km from the town with the ensuing difficulty of trying to steer the car and caravan on the greasy road. The next day was fine, so, after having a look at the famous Little Gulflander train, we set off for Burketown. Some 40 km from Normanton on Mogowra station we had the thrill of locating the fossil deposit we had hoped to find. Two very exciting days were spent collecting fossil ammonites of several species, belemnites, petrified wood with toroide borings and many other miscellaneous fossils. We camped some distance away close to the Burko and Wills Campsite 119, on the bank of the Bynoe River. An immense flock of little corella (Cacatua sanguinea) together with an inquisitive bustard (Eupodotis australis), numbers of brolgas (Grus rubicunda) and a flock of Burdakin ducks (Tadorna radfordi)



August 1981

Victorian Entomologist

Due to the very rough roads, our car battery collapsed, stranding us on the Carnarvon Highway 60 km from Rolleston. Help from a young sapphire prospector started our engine and we were able to drive on to Rolleston without lights, arriving at 1.30 AM. After acquiring a new battery we drove to Planet Downs station where I had hoped to locate the local cycad species, M. platyrachis. However, due to the vast area of the station property with few vehicle tracks and uncooperative owners, this was not achieved.

While we were here we did collect some butterflies in a small patch of original vegetation :

Acraea andromacha andromacha  
Catopsilia pyranthe crokera  
 " pomona pomona  
 " gorgophone gorgophone  
Danaus chrysippus petilia  
Eurema smilax  
 " hecabe phoebus  
Elodina parthia  
Anaphacis java tentonia  
Precis villida calybo

Our next collecting spot was the mining town of Mount Morgan where we found the local population very friendly and helpful. While checking over the as yet undescribed species of cycad found here, we found a number of larvae of the Lycaenid butterfly, Theclinestes miskini, sheltering inside the stem of the cycad fronds. They had eaten out the centre of the stems causing the leaves to collapse and wilt with the larvae then eating the wilted fronds. We retained several specimens which continued to feed on the old fronds. Later fronds of C. media of the same age were collected with T. miskini larvae sheltering underneath the pinnae and the fronds fed to the Mt. Morgan larvae. They tried to feed but rejected the C. media returning to the now very withered fronds of the Mt. Morgan species. When all the pinnae were consumed, the larvae pupated, emerging during the following weeks.

Other butterflies collected at Mt. Morgan were :

Catopsilia pomona pomona  
Acraea andromacha andromacha  
Dolias argenthona argenthona  
Euploea core corinna  
Hypocysta adiantum adiantum  
Eurema hecabe phoebus  
Polyura pyrrhus sempronius

Continuing through Rockhampton and Yeppoon we reached Byfield. No sooner had we set up camp than rain set in, continuing for two days and three nights without stopping with the result that the causeway over which we had crossed was flooded trapping us here for six days. Fortunately it was a very pleasant spot apart from a few ticks and leeches. Here, for the first time I was able to observe wombo pigeons, Ptilinopus magnificus, as well as the white headed pigeons Columba leucomela which were feeding on the great abundance of fruits in the scrub.

August 1981

Victorian Entomologist

Burketown was the next point of interest and from there we headed south for Thornton station, some 90 km north east of Camooweal. Unfortunately, a patch of rain at Gregory Downs brought our vehicle to a sticky halt, leaving no choice but to camp in the middle of the road. After a day and a half the road surface was sufficiently dry to give the tyres traction. During the time that we were stopped the car and caravan wheels had packed hard with mud which took much effort with a geological pick to remove.

We finally arrived at Thornton station only to be very disappointed in not being able to locate the fossils of Australia's oldest echinoderm. Delays due to the unseasonal rain had cost us eight days and despite the assistance of station staff after two days searching we were not able to find them. The station occupies some 6400 square miles and the time involved in navigating even a small distance in this difficult country is something I had not experienced in southern or eastern Australia.

Going on the way to Mount Isa, we took one Ogyris amaryllis, the first butterfly we had seen since leaving Atherton Tablelands. One Eurema smilax, one Graphium agamemnon ligatum and one small blue were the only ones seen as we drove through the Channel Country.

At Mt. Isa we were greeted with the news that major flooding on the Mitchell Highway had closed this route home and the Birdsville track for at least another eleven days which left us with the only option of returning via the Castlereagh Highway and the Newell. Driving the hundreds of kilometers in low gear due to the wet and bad road conditions resulted in a mechanical breakdown 70 km north east of Longreach adding an additional day and a half's delay.

We finally completed the trip with our lift-up caravan and the three children after covering some 14000 km in 48 days. It was a most rewarding experience with substantial collections made of cycad seed, insects, fossils and many photographs of the birdlife we saw along the track.

#### References :

- Common, I.F.B. & Waterhouse, D.F. (1972) - Butterflies of Australia  
 Giddy, C. (1974) - Cycads of South Africa  
 Johnson, L.A.S. (1959) - The Families of Cycads and the Zamiaceae of Australia.  
 Fairchild Tropical Garden Bulletin, Jan. 1980  
 Readers Digest Complete Book of Birds, 1979  
 Geological Society of America - Treatise on Invertebrate Palaeontology.



Mon. Treasurer's Report

Statement of Receipts and Expenditure for Year Ended 31st December 1980

Credit Balance brought forward..963.84

Receipts

Bank Interest, General Account... 33.20  
Subscriptions..... 535.  
Ex Subs, Journal Sales..... 6.  
Advertising Sales..... 42.

Expenditure

Journal Production  
Photocopying, Stationery..... 148.35  
Postage..... 74.29  
Secretary's Petty Cash..... 10.  
Projector Use..... 5.  
Typewriter..... 300.  
Typewriter repair, tape..... 8.57  
Entrecs Stationery..... 13.92  
Telephone..... 5.50  
Credit Balance-General Account... 1014.41

47

Publications and Equipment Fund 260.75  
inc.interest

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\$1840.79

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Publications Equipment Fund 260.75  
inc.interest

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\$1840.79

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Audited and found to be in accordance with the records submitted

Kevin Ross  
Chartered Accountant ,  
Melbourne.

August 1981

Victorian Entomologist

## ON THE GRAPEVINE.

Tim Now has recently accepted an invitation to serve on the Editorial Board of 'Neuroptera International', a new specialist journal being published in France.

Recent word from Julio Field told of Ross being flat out trying to finish his thesis, hopefully by the 1st. of August, after which they plan to drive across the U.S. They have booked to leave New York on the 13th. September, arriving home on the 1st. November.

Heaven knows it has been cold enough down here in Melbourne but we must bear a thought for those who live in our Capital. Speaking to Ian Connors the other evening, he told of his expecting frost to the roof top and masses of snow on the surrounding hills. Brrrrr!

Ray and Nola Manskie seem to have arrived in Maryborough, Queensland, in one piece, with the exception of a cracked glass on a cabinet drawer from a particularly deep pot hole. They are busy house hunting staying in a caravan park cabin in the meantime.

President Peter Kelly had the pleasure of welcoming Ken Walker to the last council meeting. He is trying hard to adjust to the miserably cold weather inflicted on us down here this year. He recently took up his appointment at the National Museum at Abbotsford. Although he is devoting his time mainly to the Apoidea (bees), he is not losing his interest in other groups.

In contrast to the complaint of drought conditions round the countryside last year, Keith Hately tells of every depression near Kiata being inundated with water. Friends will be pleased to hear that Mary is better now than she has been for a long time.

After much preparation, David Crosby, has now moved to his new home at 74 Gipps St, East Melbourne, with the telephone number 416345. With his continuing task of the work on ENTRECS, he will shortly be getting in touch with members who have not as yet taken the few minutes needed to list the specimens of the Pteridae in their collections.

George Gibbs, author of New Zealand Butterflies, arrived in Australia recently. He is starting his tour in Canberra and planning a trip to the north and New Guinea. We are hoping that we might see him here in Melbourne later in the year before his return home.

Gordon Burns is still struggling with the intricacies of trying to sort out his Euprostoidae. With poring over keys and visits to the Museum, he is at present in the process of naming the many species of Cisseis he has in his collection.

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WRITE FOR CATALOGUE

CONTENTS

Minutes of the Annual General Meeting, 19 June, 1981.....	37/40
Minutes of Council Meeting, 24 July, 1981.....	40
Travelling in 'Wait-a-While Country', D.J. Stewart.....	41/46
Hon. Treasurer's Report.....	47
On the Grapevine.....	48

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--000000--

DIARY OF COMING EVENTS

August 21st: General Meeting. Speaker Dr. Ettershank, "How Subterranean Termites find food on the surface."  
September 18: Council Meeting.  
November: Possible excursion to Melville Caves.

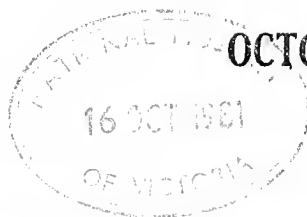
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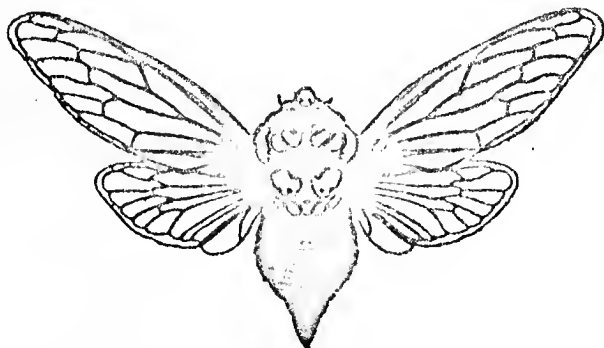
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**VOL. II NO. 5**



**OCTOBER 1981**

# **VICTORIAN ENTOMOLOGIST**



Registered for posting  
as a periodical Category B  
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**Journal of  
The ENTOMOLOGICAL  
SOCIETY of VICTORIA**

# THE ENTOMOLOGICAL SOCIETY OF VICTORIA

## MEMBERSHIP

Any person with an interest in Entomology shall be eligible for Ordinary Membership. Members of the Society include professionals amateur and student entomologists, all of whom receive the Society's Journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and study groups, of libraries and of University and departmental staff.

## OBJECTIVES

The aims of the Society are :

- (a) to stimulate the scientific study and discussion of all aspects of entomology,
- (b) to gather, disseminate and record knowledge of all identifiable Australian insect species,
- (c) to compile a comprehensive list of all Victorian insect species and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in Entomology.

## MEETINGS

The Society's meetings are held at Clunies Ross House, National Science Centre, 191 Royal Parade, Parkville, Victoria, at 8 P.M. on the second last Friday of even months, with the possible exception of the December meeting which may be held earlier.

Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with like interests. Forums are also conducted with short addresses by members on their particular interest so that others can participate in the discussion.

## ANNUAL SUBSCRIPTIONS

Ordinary Member.....	10.00 (Aust)	Approx 11.50 (U.S)
Student, Associate.....	5.00 (Aust)	" 5.75 "

## JOURNAL POSTED SURFACE MAIL

No additional fee is payable. Associate Members, resident at the same address as, and being immediate relatives of an Ordinary Member do not automatically receive a copy of the Society's publications, but in all other respects rank as Ordinary Members.

## CONTRIBUTIONS TO THE "VICTORIAN ENTOMOLOGIST"

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of Entomology for publication within the Journal. Contributions are not restricted to Members, but should be a responsible and original. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed it would be of great assistance if they were typed on A4 (International quarto) paper, single spaced with double spacing between paragraphs with a margin of 3 cm.

ADVERTISING: Five dollars per half page

16 OCT 1981

OF VICTORIA

Minutes of the General Meeting, August 21st., 1981.

The President, P. Kelly, chaired the meeting which commenced at 8.15 P.M.

Attendance: G. & J. Burns, P. Carwardine, R. Condrón, D. Crosby, D. Delsante K. & L. Dunn, G. Ettershank, D. & J. Helmos, M. Hunting, D. Johnson, J. & M. Le Souëf, S. McEvoy, T. New, O. Roggo, M. & S. Smith and R. Vagi.

Apologies: K. Walker, P. Williams, D. & N. Stewart and A. Neboiss.

Minutes of the previous general meeting (April 24) were passed Crosby/Burns.

Corr spondence received from Ent. Soc. Qld, Ent. Section R. Zoo. Soc NSW Aus. Nat. Parks and W/L Svce., CSIRO (Ent), Aust. Ent. Soc. Received. (M. Le Souëf/S. McEvoy)

Treasurers Report: R. Condrón reported that there are at present 63 financial members. There is a credit balance of \$1420.86 (general account) and \$270.50 (publications account.) Accepted (G. Burns/J. Burns)

Editor's Report: J. Le Souëf reported that material is on hand for the next issue of the Journal and several articles had been promised. More would be appreciated for later issues.

Excursions: The Council's suggestion of an excursion to the Melville Gneiss area in November was discussed at length. It is likely that there will be sufficient support for a two-day excursion on 21-22 November.

Exhibits

1, P. Carwardine; the new edition of Butterflies of Australia. He drew members attention to a reduced price for copies obtainable through him.

3D. Johnson. a carabid beetle apparently reared from larvae feeding, buried in sand.

The President then introduced the speaker, Dr. G. Ettershank (Dept. of Zoology, Monash University), to give a wideranging talk based on his work in New Mexico - 'How the subterranean termite finds food on the surface'.

He was thanked by D. Crosby.

The meeting closed at 9.50 P.M.

Minutes of Council Meeting held at Clunies Ross House18 September 1981.

A Vice-President, Mr. G. Burns chaired the meeting which commenced at 8.12 P.M.

Apologies : R. Condron, D. Cresby, P. Koliy, J.C. & M. Le Scouëf,

Present : G. & J. Burns, P. Carwardine, T.R. New, D. Stewart and K. Walker.

Minutes of the July Council Meeting were confirmed - Carwardine/Burns.

Correspondence : Accepted - Carwardine/J. Burns.

Treasurer's Report 65 financial members. Credit balance \$1423.04 (General Account), \$270.50 (Publications A/e). The Council recommended that the treasurer should examine ways of increasing investment income on the Society's funds, in view of the substantial future funding needed for ENTRECS, it was recommended that up to \$1000 should be placed in a higher income bank deposit. Report adopted: Stewart/J. Burns.

Excursions : P. Carwardine reported on arrangements for the excursion to the Melville Caves area in November. Meeting places were agreed and details appear in this Journal.

General Business

1. Meetings: The Secretary reported that Dr. Morse had confirmed his willingness to address the Society at the October meeting. The December meeting: a members' night at which members are asked to bring slides for discussion, and refreshments. The February meeting is to be a forum night, (members are requested to bring exhibits to that meeting) and K. Walker agreed to address the April meeting on 'Native Bees'.
2. Brief discussions were held on :
  1. Advertising the Society's meetings as a possible method of increasing membership.
  2. Adequacy of the current ENTRECS grid base - more precise data, based on latitude and longitude were considered unnecessary in relation to needs from the project,
  3. Exhibits at meetings. Several members have commented that numbers of exhibits have tended to decrease. More exhibits should be encouraged (see programme for February meeting)
  4. Amendments to the constitution of the Australian Entomological Society.

The meeting closed at 9.20 P.M.



STOPOVER IN MALAYSIA, - WITH SPECIAL REFERENCE TO HESPERIIDS

by Andrew Atkins.

During June-July, 1980, I had the opportunity to visit Malaysia en route from London to Melbourne. The following notes are taken from records of observations and collecting made by myself and by Miss Jane Wyllie who accompanied me during the short stay in that country.

It was necessary to travel to Kuala Trengganu, our initial destination, by bus. This transport runs twice daily from Kuala Lumpur to the east coast. The night bus, which we took, proved to be rather a hazardous experience due to one breakdown and the apparent casualness of the driver. Malaysian night drivers operate a code of road dominance or 'chicken' that encourages overtaking at all costs, especially on double lines. The countryside along the road ranged from paddy-fields, palm and rubber plantations to open plains and dense rainforest. The latter vegetation is sadly much depleted on the lowlands. Along the way surprisingly few insects were about - apparently due to the short dry season that occurs at this time of the year, particularly on the east coast.

Our hosts at Kuala Trengganu were Jane's sister and brother-in-law, Margaret and Chris Thomas and their delightful children, Katherine and Nicole. During the next few days we were treated to several tours of the town and nearby sites of interest. In the city the great variety of local and ethnic dress is evident and the markets are very colourful with much produce on show from the traditional farming and fishing industries.

The surrounding country is relatively flat, with some hills scattered about the suburbs. To the north, along the coast are large areas of Melaleuca and Pandanus sandy scrub, but, although the paperbarks were covered in flowers, again few insects were seen. The hilltops were a little more productive, however, and several butterflies were seen in these areas, including Papilio, Graphium, Delias, Euritis, etc. The skippers included Polipidas spp. and Cepirenos.

Chris Thomas is a keen butterfly collector with a good representative collection of the local species. He was able to show us many foodplants and larval habitats in the area. The waste grounds and swamps were ideal spots for Precis almana and P. orithya and Platylabus, several blues, browns and swallowtails, etc. The grass-feeding skippers (Taractrocera, Ampittia, etc.) were not uncommon here. Chris showed me the peculiar spiral-rolled larval shelters of the Banana-leaf Roller (Eriocota thirax), a large crepuscular (dusk-flying) skipper, common to the district.

To the south of Kuala Trengganu are many fine beaches lined with coconut palms. Areas of beach conservation here, designed to protect turtles, do not entirely prevent illegal marketing of turtle eggs. Further south again at Titik are a few nice tourist resorts and miles of sandy beaches ideal for swimming. Here again are the 'North Queensland' type paperbark scrubs. The Pandanus (Screw palms) growing in the dunes were noticeably attacked by the Pandanus Roller Unkana ambasa, another large and attractive crepuscular skipper that must have one of the longest proboscis in the Hesperidae.

cont.

I collected a larva of this species and that of a Borbo sp. which was feeding on grass.

The highlight of our stay in Malaysia was a trip, organised by the Thomas's, to Fraser's Hill on the western highlands. Surrounded by dense montane rain forest, this beautiful resort is a must for any insect enthusiast. The cool nights 'buzz' to the sound of enormous stag beetles. The local postoffice, in fact, had one of these monsters tethered to the inkwell, which didn't prevent it stomping around the counter! The variety of impressive rainforest Coleoptera can be gauged by a display case containing about 20 species (none of which was less than 80 mm long), that hung in the local pub bar wall. Enough to sober the hardest drinker!

The neighbouring forests of Fraser's Hill produced many butterfly species, though none in large numbers. Most noticeable were Delias, Graphium, Papilio, Euploea and a few species of Satyrids and the fast flying Riodinids. Jane was very interested to see the huge 'paper butterflies' (Idea spp.) flitting through the shadows. On the hillslopes and in the gullies we saw a number of the large black and yellow Birdwings and the Rajah Brookes' Birdwings (Froides and Trogonoptera) gliding around an orange-flowered creeper that commonly festoons the forest canopy in the area. Beside the roads and on the grassy slopes were to be found dark coloured skippers (Iambrix, Aeromachus) resting in the sun. At the waterfall a brilliant array of Eurema, Graphium, Appias, Cyrestis, Dolioschallia and others drank from stagnant seepage near the toilet block. Other brilliantly coloured butterflies flew about the sunlit clearing (Athyma, Tanaecia, Cethosia, Pareronia, Thrix, etc). Skippers too were common here including the very smart bright orange and black Koruthaialos rubecula; A fleeting glimpse of the very lovely coeliadine skipper Basora schoenherr and larvae of two or three species of palm skippers.

Perhaps one of the most interesting observations was that of Pithauria marsena. This moderately large, robust and extremely rapid flying skipper was seen in small numbers alighting on the concrete walkways below the waterfall. The skippers were seen to bend the abdomen under the thorax to meet the uncoiled haustellum and exude a droplet of water, presumably from the anus, onto the concrete or moss and lichen. In this position the skipper would remain feeding for some minutes. On closer inspection they were seen to frequently fly off rapidly to wet gravel at the waters' edge some yards away, apparently to replenish their supply of water, only to return some minutes later to repeat the process.

cont.

This strange habit of reimpibing exuded liquid is only known from Hesperiidae and has frequently been mentioned in literature since the 1920's. Jim Jobe recently observed in New Guineaa Telicota ancilla mamba feeding in this way from a human hand (pers.comm.). Other observations have been made for African skippers, including one report of a species drip king from the bonnet of a car. This Malaysian record is the first instance, that I can trace, in which an immediate water supply was being utilised; the skippers were apparently extracting a chemical from the concrete surface by means of an externally obtained solvent.

Several Birdwings were seen in the gorge below the waterfall including a male and female 'Rajah Brookes' gliding and fluttering together in a courtship flight, the male hovering above his mate.

Our trip to the east coast concluded with a short stay in Malacca. This historic and quaint city recalls the old trading ports of the orient shipping routes. The Chinese and Portuguese architectural character is richly interwoven throughout the busy streets. In one open tree-lined square, the traffic noise was challenged by numerous typewriters manipulated by men transposing the dictation of illiterate citizens.

Grass skippers were quite common at Malacca, particularly in waste allotments. Some of these were caught for us very skillfully by hand, by a couple of youngsters. On one garden plant (Zingiberaceae) I found a pupating larva of the very attractive Udaspes folus, a broad-winged black and white skipper.

In all, twelve species of skippers were collected on this trip and a similar number photographed. The success of the trip was made possible by Margaret and Chris Thomas and I thank them for their generous hospitality and for their guidance in local 'know-how' and 'lingo'. To Jane, my sincere thanks for collecting and photographic assistance, despite the enchanting diversions provided by her young nieces.

#### SPECIES OF HESPERIIDAE COLLECTED OR OBSERVED IN

##### MALAYSIA, JUNE - JULY 1980.

- \* Hasora schoenherri (Howitson), 1867.....Fraser's Hill
- Pithauria marscha (Howitson), 1866..... " "
- Iambrix salsala salsala (Moore), 1806..... " " & Malacca
- Koruthainia rubecula rubecula (Platz) 1882 " "
- Aeromachus joera creta Evans 1943..... " "
- \* Notocrypta sp..... " "
- Udaspes folus (Cramer) 1775..... Malacca (reared)
- Erionota thrax (Linn), 1767.....Fraser's Hill, Kuala T (Reared)
- Unkana ambasa batara Distant, 1886.....Titik (reared)

Cont.

- Taractrocera ardonia lamia Evans, 1934.....Malacca, Kuala T.  
Potantias lydia fraseri (Evans), 1934.....Fraser's Hill  
Ampittia dioscorides camotes (Howitson), 1868. Malacca, Kuala T.  
Pelopidas mathias mathias (Fab.) 1793..... " "  
Barbo cinnara (Wallace), 1866.....Titik (roared)  
 \* Polytremis sp..... Fraser's Hill  
 \* Stenotus minutus flemingi Eliot, 1973..... " "

Additionally three species of Ilasora (I. badra badra (Moore), I. schoenberri chusa (Howitson) and I. mus pahanga Evans) were 'collected' from a butterfly dealer at Fraser's Hill. Those species are reported to fly between 4.30 and 5.30 in the evening. Iambrix salsala was observed laying eggs on an unidentified soft grass in Malacca

\* Species observed only.

--oo00oo--

#### How Subterranean Termites Find Food on the Surface

G. Ettershank

Termites are much maligned animals but in fact are the major detritivore in deserts of the world. Subterranean termites in New Mexico, U.S.A. will attack any dead organic object lying on the ground, but rarely attack buried objects. Do they attack such objects by merely foraging at random, by chemical cues or by temperature aberrations from the insulating effect of the object?

An experiment was described in which a bait, cow pats, were laid out in two rows, one row being underlain with plastic film; a similar row of film did not have cow pats. The pattern of attack showed that the termites concentrated their attack on the temperature gradient below the pat. Chemical cues and random foraging were shown not to be important.

(A very brief summary of a fascinating address. Ed.)

#### ON THE GRAPEVINE

Ken Walker is settling down at Abbotsford seeing something of our Victorian countryside, sampling our butterfly fauna and always with a weather eye out for bees.

Congratulations go to Ross Field on his doctorate. Now, on their way home, Ross and Julie will no doubt be looking forward to be home again and swinging a net again in their old haunts.

Gordon and Joy Burns are off again soon on their annual Buprestid visit to the Big Desert. They are hoping to continue their collecting trip to the north again to the country round Rockhampton and to the west.

Comment on the Weather Map

Funny thing, weather, isn't it? We start the day with "Oh, what a beaut day" or, perhaps "more lousy rain!" but somehow it always has been a leading topic of conversation.

On a trip to Cobarr, a couple of years ago, we had no idea that there had been a two year drought in the district until we got there with a disastrous effect of the expected insect emergencies.

For some years I have tried to learn something of weather conditions round Australia without success. The cattle reports on the ABC on Fridays gave some<sup>idea</sup> but a request to extend this information was not successful. However, I did learn from them that the Bureau of Meteorology did publish a monthly review of rainfall round Australia and, when suitable, a drought review as well. With this information, distant trips can be organised with some knowledge of the conditions of the countryside when one arrives.

If you are interested, this Monthly Rainfall Review and the Drought Review are available from The Department of Science and Technology, Bureau of Meteorology, G.P.O. Box 1269, Melbourne 3001. The cost is \$8.80.

J.C. Le Souëf.

ON THE GRAPEVINE.

October, Gosh, what an exciting time of the year it is when our entomological fraternity begins to stir after, here in the south, a miserable winter hibernation.

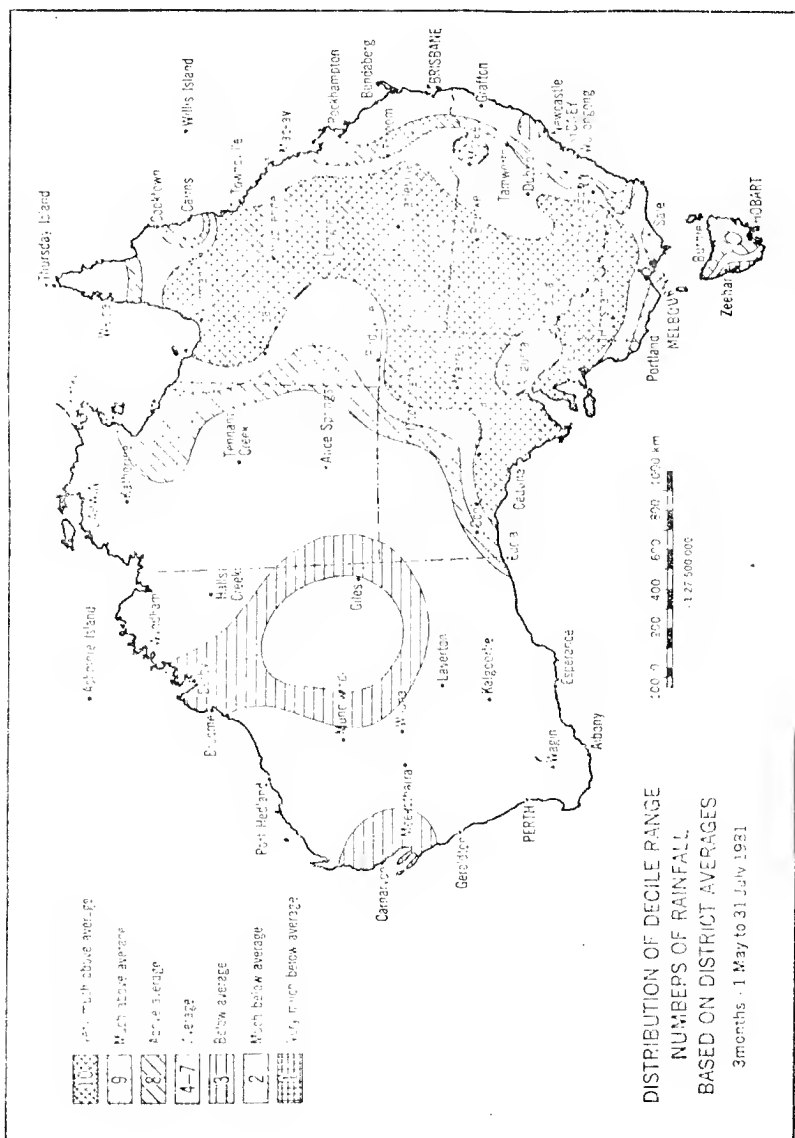
There was a cheery note from Ray and Nola Manskio telling of having moved into their new home in Maryborough, Queensland and a photograph to save explanations. Their new address is 139 Queen St, Maryborough, Queensland, 4650.

Word from Andrew Atkins recently mentioned an unsuccessful sortie after Anisynta albovenata to Gunnedah, but reveling in the birds and the flowers in the Pilliga Scrub.

Among the 'Z Car' porigrinations from Canberra, Andrew Calder is on the Ornothoptera trail in W.A. with David Reik.

Our congratulations go to young John Hallgarten on the recent announcement of his engagement.

During a short stay in Canberra last month, Dorothy Johnson paid a visit to CSIRO where Ken Weir did the honours of shewing her round the establishment.



One page extract from the 12 page booklet.

Some Recent Lepidoptera Paper Titles

Atsatt, P.R., 1981

Ant-dependant food plant selection by the mistletoe butterfly Ogyris amaryllis (Lycaenidae)  
Oecologia 48: 60-63.

Herbert, P.D.N. 1980

Moth communities in montane Papua New Guinea.  
J. Anim. Ecol. 49: 593-602.

Holloway, J.D. & Herbert, P.D.N. 1979

Ecological and taxonomic trends in macrolepidoptera host plant selection.  
Biol. J. Linn. Soc. 11: 229-251.

LeG, G. 1978.

A note on the diversity of World Lepidoptera (Rhopolocera)  
Biol. J. Linn. Soc. 10: 343-347

McQuillan, P.B. 1981.

A review of the Australian moth genus Thalaina (Lepidoptera: Geometridae: Ennominae)  
Trans. Roy. Soc. S.A. 105: 1-23

Rauscher, M.D. 1980

Host abundance, juvenile survival and oviposition preference in Battus philenor.  
Evolution 34: 362-355.

Richards, L.J. & Myers, J.M. 1980

Material influences on soil and emergence time of the cinnabar moth.  
Can. J. Zool. 58: 1452-1457.

Scott, P.R. & Harrison, R.A. 1979

The biology and life history of the currant clearwing Synanthedon tipuliformis (Lepidoptera: Sesiidae) in Canterbury.  
N. Z. J. Zool. 6: 145-165

Stamp, N.E. 1980

Egg deposition patterns in butterflies: why do some species cluster their eggs rather than deposit them singly?  
Am. Nat. 115: 367-380

Symen, D.E. 1980

The foodplants of Australian butterfly larvae.  
J. Adelaide Bot. Gdns. 2: 277-292

BOOK REVIEW.By D.F. Crosby.

"Butterflies of South Australia" by R.H. Fisher. 1978

This is a handbook in a series published by the South Australian Government on the fauna and flora of South Australia and it covers the 64 species found in that State.

The opening section commences with a history of the study of butterflies in South Australia. This is followed by chapters on classification, life history and early stages, structure of a butterfly, origins and distribution of South Australian Butterflies, making and storing a collection, the study and recording of life histories.

This section extends to 62 pages and covers the topics in considerable detail but in a most readable manner. Any student of the Australian butterflies generally would find the information invaluable, particularly the parts on life history/early stages and the study and recording of life histories, the former with some excellent black and white photographs and the latter a mine of information gleaned from long practical experience. The desirability of retaining examples of attendant ants and parasites with appropriate data, is a commendable suggestion.

The section dealing with the origins and distribution of the South Australian butterflies is particularly interesting, mentioning the incursion of exotics during the 1973-1974 season noticed in other states.

The next section covers the systematic descriptions and extends to 174 pages. The fauna is broken up into the accepted families. Following brief discussion on the family with genus separation key, each genus is outlined together with pertinent details and a species key is provided.

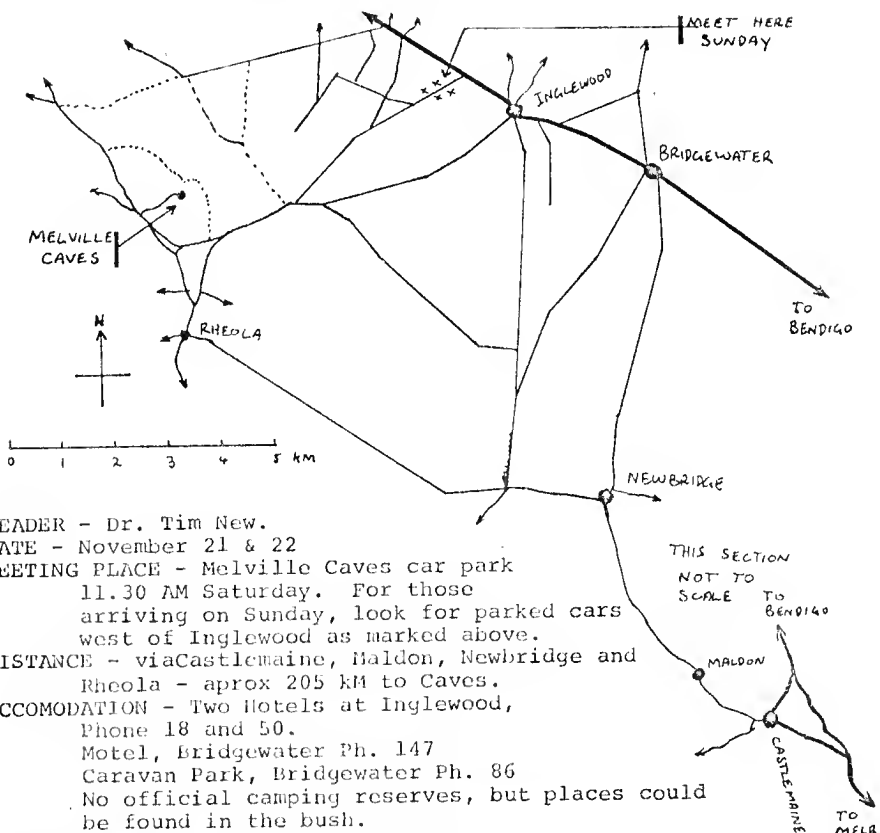
When reading the information provided under the individual species, it is not possible to be other than impressed by the amount of detail in the descriptions of life history and biology generally, all accompanied by excellent, clear, well magnified black and white photographs. Those all reinforce the impression of photograph skill, painstaking attention to detail and very careful observations. In almost all cases, egg and late larvae, and pupa are illustrated *in situ* on the foodplant.

Included amongst the systematic descriptions are 14 colour plates of all 64 species, most with upper and lower sides of the adults depicted for both sexes. Generally these plates are good, although some of the smaller species could have been increased in size with advantage. Two plates of life histories are also added.

After the systematic descriptions there follows an excellent list of larval foodplants (a most valuable innovation), 103 references showing the major bibliographical items, a glossary of 181 technical terms (also very useful) and a comprehensive index.

Every collector and student of Australian Butterflies should possess a copy of this excellently prepared handbook (which is available at a very reasonable cost) as it sets standards of presentation and information not previously available for any state group of butterflies and as so many included are represented beyond South Australia.



EXCURSION TO MELVILLE CAVES

LEADER - Dr. Tim New.

DATE - November 21 & 22

MEETING PLACE - Melville Caves car park  
11.30 AM Saturday. For those  
arriving on Sunday, look for parked cars  
west of Inglewood as marked above.

DISTANCE - via Castlemaine, Maldon, Newbridge and  
Rheola - approx 205 km to Caves.

ACCOMMODATION - Two Hotels at Inglewood,  
Phone 18 and 50.

Motel, Bridgewater Ph. 147

Caravan Park, Bridgewater Ph. 86

No official camping reserves, but places could  
be found in the bush.

FOOD - Cafe and Milkbar at Inglewood.

SERVICE STATION - at Inglewood.

POLICE - Grant Street Inglewood, Ph. 32 or 102.

DOCTOR - 3 Hospital Street Inglewood, Ph. 185.

HOSPITAL - Inglewood Ph. 180.

TRANSPORT - Anyone who requires transport or can offer transport  
please phone Peter Carwardine 509 0622 Work, 211 8958  
at Home.

Some members may only be able to attend on Saturday or Sunday.  
The meeting places have collecting areas around for the  
earlycomers while waiting.

MAPS - Australia 1:250,000, St. Arnaud

Australia 1:100,000, Dunolly

Broadbent's No. 193, Bendigo

Phone 45 1353

Area Code 075

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World Wide Lepidoptera  
Registered Nursery

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Asking price is \$160,000.00, this includes:

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- Gas stove - water storage tank and pressure pump - Carport for 2 cars.
- 2 1/2 acres of land - main road frontage & good creek at back.
- 2 inch pump on creek with petrol standby pump - Automatic watering system to five points.
- 1 Heated butterfly cage 50' X 30'.
- 1 Gauze cage 50' X 40'.
- 1 Bushouse 40' X 20'.
- 1 20' igloo & 2 small bushouses.
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WRITE FOR CATALOGUE

Minutes of General Meeting, 21 August, 1981.....	49
Minutes of Council Meeting, 18 Sept, 1981.....	50
Stopover in Malaysia, A. Atkins.....	51/54
How Termites find Food on the Surgaco, G. Etershank.....	54
On The Grapevine.....	54/55
Weather Map & Comments.....	55/56
Some Recent Lepidoptera Titles, T. New.....	57
Book Review.....	58
Excursion.....	59
Advertisement.....	60

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Mesdames Joy Burns, Mary Le Souëf, Dorothy Johnson, Messrs  
David Crosby, Ken Walker, John Hallgarten.

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#### DIARY OF COMING EVENTS

- October 23-General Meeting; Speaker: Dr. J. Morse from South  
Carolina on Aquatic Insects of Upper Three  
Runs Creek, South Carolina.  
November 21/22-Excursion to Melville Caves.  
December, 11, Christmas Meeting, Films and Supper.  
February 19th, 1982-Forum.  
April 23-General Meeting. Speaker Ken Walker on  
Native Bees.

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VOL. II NO. 6

DECEMBER 1981

# VICTORIAN ENTOMOLOGIST



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Journal of  
The ENTOMOLOGICAL  
SOCIETY of VICTORIA

CSA

# THE ENTOMOLOGICAL SOCIETY OF VICTORIA

## MEMBERSHIP

Any person with an interest in Entomology shall be eligible for Ordinary Membership. Members of the Society include professionals amateur and student entomologists, all of whom receive the Society's Journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and study groups, of libraries and of University and departmental staff.

## OBJECTIVES

The aims of the Society are :

- (a) to stimulate the scientific study and discussion of all aspects of entomology,
- (b) to gather, disseminate and record knowledge of all identifiable Australian insect species,
- (c) to compile a comprehensive list of all Victorian insect species and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in Entomology.

## MEETINGS

The Society's meetings are held at Clinics Ross House, National Science Centre, 191 Royal Parade, Parkville, Victoria, at 8 P.M. on the second last Friday of even months, with the possible exception of the December meeting which may be held earlier.

Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with like interests. Forums are also conducted with short addresses by members on their particular interest so that others can participate in the discussion.

## ANNUAL SUBSCRIPTIONS

Ordinary Member.....	10.00 (Aust)	Approx 11.50 (U.S)
Student, Associate.....	5.00 (Aust)	" 5.75 "

## JOURNAL POSTED SURFACE MAIL

No additional fee is payable. Associate Members, resident at the same address as, and being immediate relatives of an Ordinary Member do not automatically receive a copy of the Society's publications, but in all other respects rank as Ordinary Members.

## CONTRIBUTIONS TO THE "VICTORIAN ENTOMOLOGIST"

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of Entomology for publication within the Journal. Contributions are not restricted to Members, but should be a responsible and original. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed it would be of great assistance if they were typed on A4 (International quarto) paper, single spaced with double spacing between paragraphs with a margin of 3 cm.

ADVERTISING: Five dollars per half page

December 1981

Victorian Entomologist

Minutes of the General Meeting, held on October 23rd., 1981 .

The President, P. Kelly, chaired the meeting which commenced at 8.10 PM

Attendance: P. Carwardine, C. Cervone, R. Condrón, D. Crosby, D. & J. Holmes, M. Hunting, D. Johnson, G. & M. Lindsay, S. McEvoy, A. Neboiss, J. R. & D. New, T. Owon, A. Sherwood, S. Smith, C. Stahl, D. & N. Stewart, R. Vagi, I. Watkinson and A. Yen. L. Dunn.

Apologies: G. & J. Burns, K. Dunn, J. & M. Le Souef,

Minutes of the previous meeting (August 21) were passed, (Condrón/McEvoy).

Correspondence received from Australian Entomological Society, CSIRO, (Ecos) Entomological Society of Queensland, Ento. Section of the Royal Zoological Society of New South Wales. Received (McEvoy/Watkinson).

Treasurers Report: R. Condrón reported there are currently 65 financial members. The credit balance is \$1427.84 (general a/c) and \$270.50 (publication account). Accepted (Watkinson/Stahl).

The meeting endorsed Council's recommendation that the Treasurer should examine the possibility of transferring some funds to a higher income investment account.

Excursions: P. Carwardine commented on final arrangements for the Melville Caves trip.

General Business: R. Condrón drew members's attention to the Land Conservation Council recommendations for the Grampians and to an article on Lepidoptera in a recent issue of the Victorian Naturalist.

2. D. Holmes: a letter from a German worker wishing to exchange butterflies. A discussion followed on the current procedure for exporting/importing insect specimens. (A. Neboiss/T. New)
3. D. Johnson showed pupae of a noctuid moth and a tachinid fly found in sand.
4. The President commented on the programme for the next few meetings and requested members to bring slides and refreshments to the December meeting. Hot water will be available for tea or coffee. There will be no Council meeting in November.

The President then introduced Dr. J. Morse (Clemson University, California) and invited him to address the meeting on 'Aquatic Insects of the Upper Three Runs Creek, South Carolina'. After a wide-ranging talk, followed by a lively discussion, Dr. Morse was thanked by the President.

The meeting closed at 9.25 P.M.

by J.C.Morse, Assoc.Prof.

Dept. of Entomol., Fish. & Wildlf.

Clemson Univ., Clemson, South Carolina

The importance of aquatic insects to various natural predators, especially fish, has been appreciated for many years, probably since prehistoric times, in man's pursuit of food and game. Modern medicine now recognizes the role that several aquatic insects may play in the transmission of particular, serious human and animal diseases. The most recent general use to which these tiny creatures have been put is in the assessment of natural water quality. Our research team at Clemson University, South Carolina, has finished three faunistic research projects in the past year aimed at providing such evaluations for a variety of reasons and in a fascinating variety of habitats.

The Francis Beidler Forest in Four-Holes Swamp, S.C., is a large wildlife sanctuary owned by the U.S. Nature Conservancy and managed by the U.S. National Audubon Society, both private, non-profit corporations. Situated in the flat, sandy southeastern Coastal Plain, this sanctuary contains the largest remaining virgin stands of cypress and tupelo trees in the world. Water levels fluctuate a meter or more annually, leaving small creeks and floodplains dry. Three lakes ("holes") in the Forest are deep enough to contain water and permanent aquatic biota, even during severe droughts. Our group at Clemson was given the responsibility to help the Audubon Society establish a monitoring program utilizing the native aquatic insect fauna as an early warning system against pollution from industrial, agricultural, or engineering activities upstream. Over a 5-year period we helped them establish standardized techniques



for sampling and sorting benthic insects from the 3 lakes, identified the captured insects, and developed computer programs for analyzing the resulting data. Monthly light-trapping operations during the first year of the project provided a somewhat more comprehensive faunal list for the swamp. After having examined <sup>over</sup> 10,000 specimens, we identified at least 108 insect species from quantitative benthic samples, and at least 125 species from the light-trap collections. Three species (2 species of elmids beetles and one of leptocerid caddisflies) are new to science and several others are apparently very rare or are found here at the limits of their extended ranges.

Upper Three Runs Creek and its tributaries are located in the Sand Hills region of our state and almost entirely within the property of the U.S. Department of Energy's Savannah River Plant, a high-security area for research and production of nuclear materials for electric power plants and weapons. This is an unpolluted, black-water (seasonally high in tannic acid concentration), moderate size stream whose bottom consists entirely of shifting sand except for occasional fallen limbs and rooted vegetation. The region through which the stream runs has been designated a National Environmental Research Park for which the Department of Energy provides funds to conduct various types of "baseline" research. Our group was asked to develop an insect faunal list, with some relative species abundance data, over the course of one year. Using semi-quantitative benthic net and debris sampling techniques and light-traps biweekly at 6 sites in the water shed, we collected over 34,000 specimens from which, with the help of 14 cooperating taxonomists, we identified an astonishing 554 species, including 2 new genera and more than 60 new species and many significant distribution records. Only 11% of the

captured fauna lives in the sandy bottom, most insects clinging or climbing or sprawling on the various "snag" habitats.

So-called "non-point-source" pollution, or subtle degradation of streams from many, relatively minor runoff sources, is thought to be reversible if the sources can be checked. The U.S. Environmental Protection Agency asked our team to evaluate the effectiveness of various soil and water conservation practices implemented under government supervision in the Broadway Creek drainage basin in the agricultural Piedmont region of South Carolina. This stream system had experienced a heavy input of silt and agricultural chemicals over many years of careless farming activity. Over the course of 3 years, we sampled at least quarterly at 12 locations using standard quantitative and a variety of qualitative benthic collection methods. Ten cooperating taxonomists helped us identify at least 205 species from over 30,000 specimens. Several statistical measures of community structure, including diversity, so-called "indicator" insects, and percentages of different insect feeding tactics, were studied by Analysis of Variance and Stepwise Regression procedures, all showing that no significant change had taken place in the stream's insect community during the 3 years of the study. Not surprisingly, we learned near the conclusion of the project of the erratic and largely ineffective run-off control practices that had been implemented by the landowners in the drainage basin during those 3 years.

Whether the cataloging and monitoring of aquatic insect populations in South Carolina has, or will ever, influence landowners' or water users' consciousness and improvement of water management practices remains to be seen. Perhaps there is value in knowing something about what is being destroyed in the meantime, knowledge to be publicized in the hope that attitudes will ultimately change.

Angus and Robertson 1981, 14 + 682 pp., 25 line drawings,  
49 colour and half-tone plates, 2 maps. Price A\$35.00.

This is the revised edition of "Butterflies of Australia" first published in 1972, which was a successor to G.A. Waterhouse's "What Butterfly is That?".

The format of this edition follows closely that of the first but has been updated to cover the literature to the end of 1979. The opening few pages deal with some early history of butterfly study in Australia. This is followed by five chapters dealing with butterfly structure and life history, biology, behaviour and physiology, geographical distribution and classification and nomenclature respectively. They have been written so as to be both useful and informative to the professional entomologist and of a similar value to the amateur collector and student without the often associated negative bewildering effect.

All known Australian butterflies are comprehensively treated which includes their distribution, morphological characters of importance for both sexes, variations that occur within a species or subspecies and a résumé of their life histories. Much of the information known about the life histories of butterflies can be attributed to the work of amateur collectors and this book will quickly inform the collector as to whether a specimen has been caught in a previously unrecorded area or a previously unrecorded food plant has been found.

A number of new colour plates have been added including one which displays the colour patterns of seven species of *Eurema* as seen under ultraviolet light. The page size of the revised edition is slightly smaller than that of the first edition and unfortunately the individual photographs of each species have had to be further reduced

in size. The colour plates allow for easy accurate identifications based alone on specific colour markings but in general they appear to be a darker shade than those of the first edition. This is most readily seen when comparing the *Hypochrysops* plate between both editions where the vivid colour of the metallic banding on the underneath of the wings is partially lost.

However, a major plus to the colour plates has been the modification or redrawing of the body and wing shape for many of the figures, presenting a more true to life figure rather than the mono-shaped bodies that sometimes appeared in the previous edition

This revised edition of "Butterflies of Australia" provides an excellent summary of present knowledge of Australian butterflies. The combination of colour photographs and concise descriptions allows identification of most species with ease and provides background information for the species. While I would recommend the book as a valuable addition to one's reference collection, the high price of the book is unfortunate as it will tend to discourage those whose interests in butterflies are only at an early stage.

Ken Walker

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#### On the Grapevine

Max and Barbara Moulds are about to prepare for their annual cicada/hawk moth safari.

Coral Stahl again exhibited three watercolours at the Wildlife Art Society of Australia's 1981 exhibition.

Kolvyn Dunn is off on a collecting trip to the north, calling on various folk on the way, at least as far as the Manskies at Maryborough.

All the very best from us both for Christmas and the coming year.

December 1981

Victorian Entomologist

Argynnina cyrila W. & L (Satyrinae) From South West Victoria.By Mark Hunting.

Collecting in the Portland district during the Spring of 1981 has been rather quiet after a prolonged cold and wet winter.

However on the weekend of November 21 and 22, two trips were made in the Nelson, Dartmoor and Heywood areas. Blue skies prevailed and the temperatures were in the high twenties.

Tisiphone aboona antoni was taken on the banks of the Glenelg River in the Tower Glenelg National Park, near Nelson (with permission from the Park Ranger). Boots and leggings are recommended for this species as it meandered through thick sword grass in swampy tiger snake country!

Argynnina cyrila was collected in two localities, each time in the same aspect, being in forest clearings along the margins of watercourses.

The first location was approximately 10 km east of Dartmoor along the Crawford River Boulevard and the second was at Jackass Fern Gully, approximately 15 km west of Heywood. All specimens were well worn and had probably been on the wing from early November. Females flew low to the ground in clearings where damp clay was at the surface but males were much stronger in flight and preferred to alight on bracken.

This record considerably extends the range of this butterfly.

December 1981

Victorian Entomologist

## TO BROKEN HILL IN THE WINTER.

J.C. Le Souëf

We left on our winter trip to Broken Hill with the object of checking on the Ogyris population in the Tibooburra area. A note in my journal of a visit we made there in 1952 referred to a specimen of O. olane having been taken there on that occasion. With only a passing interest in these butterflies in those days and not having the specimen in the collection, we felt that we would like to revisit the district and see if it was still there.

Breaking the journey at Ouyen and Wentworth, we arrived at Broken Hill on the 7th of August. A journal comment on the trip from Wentworth to Broken Hill referred to the comfort of a really good road and a new car, such a contrast to the occasion in 1952 in a Prefect, nearly bogged in the half way clay pan, so well known to travellers in those days.

At Broken Hill there was always the forlorn hope of taking either O. idmo or O. otanes, odd specimens having been recorded there years ago. We had hoped to catch up with Bruce Vardy from Maiden Gully who in sometimes in Mildura, but missed him by a day.

Because of the wonderful regeneration of the trees round the town from the lone efforts of the never-to-be-forgotten Albert Morris, it is difficult to imagine where the early odd specimens could have been taken.

Round Silverton there was some relatively untouched scrub land and it was here that we concentrated our searching. One plant excited our interest, noted at Mt. Isa previously, but it turned out to be the caustic bush, Sarcostemma australe. The only other shrub of interest we had met with in many places in the inland but it is not recorded as a suitable foodplant for Ogyris.

Filling up with petrol on the Saturday in case there was difficulty in obtaining it on Sunday we were all prepared to take the road to Tibooburra next morning. It had been a cold wet day, very much limiting our search for specimens round Silverton that day.

December 1981

Victorian Entomologist

One of the benefits of staying in a caravan park is the information that can be gained on road conditions almost anywhere in Australia from a bit of a yarn with folk in the toilet block. On this occasion I happened on two who had just returned from Tibcooburra the night before, very thankful to have been among those who had made it through the goo leaving others to await a drying wind before continuing.

So we gave the idea of going to Tibcooburra away and took the bitumen down to Port Augusta instead. Having <sup>come</sup> ~~luteus~~ at Peterborough, we decided to stay there for a couple of days and potter about looking for a few further examples of luteus for Andrew Atkins and see if there were other species of Ogyris than amaryllis. Apart from a few more luteus and several amaryllis we did take some O. olane to add to our distribution collection of this species.

We went on to Port Augusta and were able to take larvae and pupae of both O. amaryllis and O. barnardi at the collecting spot near Iron Knob.

Coming home through Melrose we were able to take some contepedes and scorpions but were not successful in finding other butterflies of interest in the district.

As the road home passed fairly close to one of our newer country members I took the opportunity to have a few words with Sam Aquilina on the telephone, with the delightful address of Cuddlee Creek, where he has a farming property.

Further along the road we took larvae of O. senoveva and O. orontes at Claro, already recorded there by Bob Fisher and the last specimen taken was an O. amaryllis on a gum not far from Keith.

At Kiata I had the pleasure of a day out with Keith Hateley following the normal procedure at this time of the year of hunting for the elusive larvae or pupae of T. sciron.

'Pieris' or 'Artogeia' or Else!

One of the first insects that most people recognise when their entomological interest is in its infancy, is the cabbage white butterfly and its scientific name Pieris rapae rapae rolls from the tongue with ease. So it was with some surprise when my generic naming of this butterfly was questioned. The correct name it seemed may have been Artogeia and not Pieris.

A check of the literature revealed that L.G. Higgins (1975) in his book "The Classification of European Butterflies" resurrected the generic name Artogeia Verity for rapae and several other Palaearctic pierids on the grounds that the genitalia and androconial scales differed from those of brassicae, the type species of Pieris, and that the chromosome numbers are also different. Ian Common's new book, the revised edition of "Butterflies of Australia" continued to use Pieris so I wrote and asked for an official ruling on the matter.

It appears that a clear cut Yes/No decision can not be made. The rapae group of species form a closely knit group, on the basis of the characters pointed out by Higgins, and brassicae alone forms another group. This name change has been accepted and used in the journal "Review of Applied Entomology" but elsewhere in the world, including America, Canada and Japan the nomenclature change has not been followed. Most workers agree that brassicae has more in common with the rapae group than with other genera of the Pieridae and see nothing wrong with referring both groups to the same genus.

So if you can roll Artogeia rapae rapae off the tongue as easily as Pieris rapae rapae, you would be well within your grounds to do so but may receive a few 'non-comprende' bemused looks in response.



ON THE GRAPEVINE

Ross and Julie Field have lost no time in settling back in their old Home in Tecoma rejoined by their old dog, farmed out at Helesville during their absense,

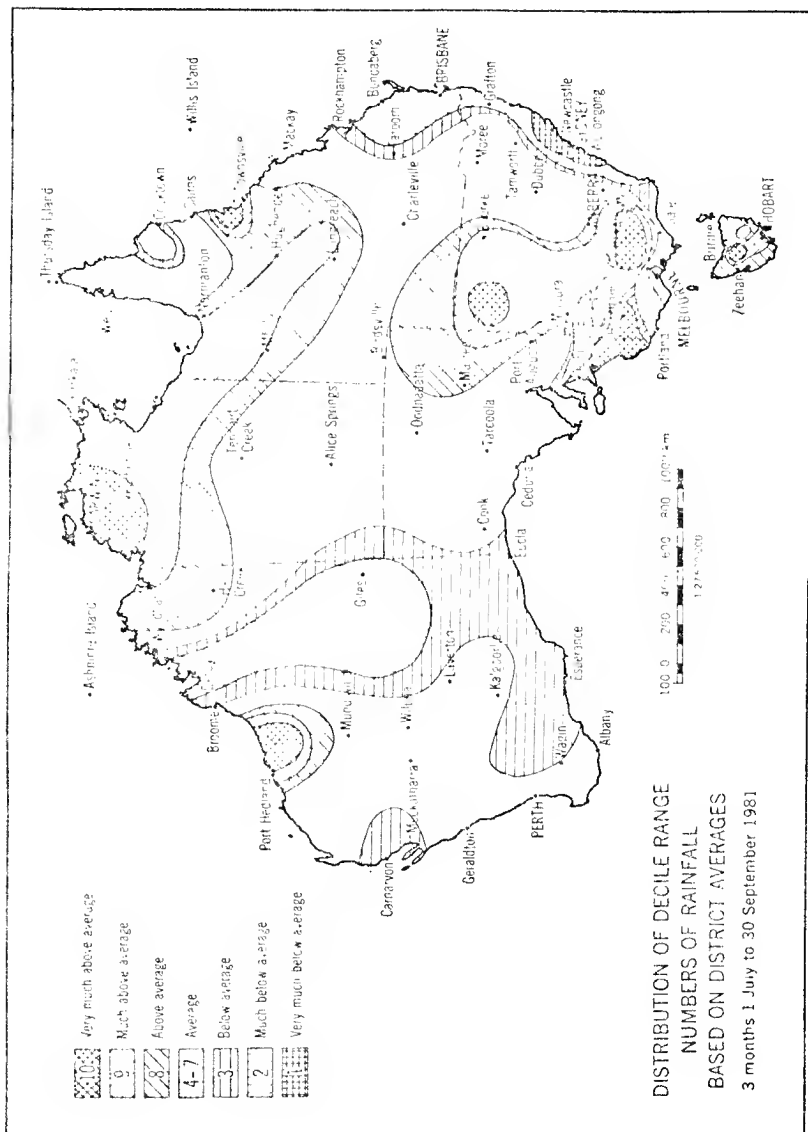
Geoff Monteith and Ted Edwards have returned from the Land Watch visit to Bartle Freer and Bollanden Ker, two of the last bastions to be thoroughly investigated in Australia. We look forward, hopefully, to reading something of the fascinating material they must have collected there, perhaps throwing a little more light on the early history of our insect fauna after von Mueller's prediction that rhododendrons would eventually be found there.

Our visiting John Morse has been busy ferrying his parents, over here from the States, about the place showing them the sights of Victoria.

In the mail last month a letter from Dr. Andrew Low told of a show to be staged by the Amateur Entomologists Society in London next year. It will be the only opportunity for the public to view the whole gamut of the Ornithoptera at a glance, 19 feet of show cases with 300 specimens selected from the Haugum/Low collection of 3000 specimens. As an addition to the show it was thought that some foodplants would be interesting. There was a frantic request for Aristalochia seeds. Luckily Garry Sankowski could oblige and they were sent off to England. I rang a few weeks later and learnt that a number had already germinated.

Gordon and Joy Burns recently paid a visit to Nhill where Joy was more than pleased to have won a number of prizes in the needlework section, including the championship in one class. While in the district, naturally, they spent some time after stigs in the Big Desert. They only stayed home long enough to weed the garden before taking off for the north again.

Richard Piper, member of the Queensland Entomological Society and B.Sc.Hons student at Department of Entomology, University of Queensland, visited Victoria recently to take part in a reconnaissance for Expedition Granite Mountain to far-eastern Gippsland. This is the fourth national expedition organized by the Australian and New Zealand Scientific Exploration Society. Richard is participating as the Zoology Group Leader; the team's efforts will be directed towards the study and collection of certain insect groups - caddis flies, small dipterans, beetles, bugs etc. While in Melbourne he spent several hours discussing objectives and field techniques with the ANZSES National Council (based in Melbourne), Dr Neboiss at the Museum and Shane McEvey (a Council member and Zoology Group Leader of a former expedition).



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WRITE FOR CATALOGUE

Minutes of the General Meeting, 23 October, 1981.....	61
Aquatic Insects, J.C. Morse.....	62/64
Book Review, Butterflies of Australia.....	65/66
Argynnis cyrilla from S.W. Victoria, W. Wunting.....	67
To Broken Hill in the Winter, J.C. Le Souëf.....	68/69
'Pieris' or 'Artogeia' or else, Ken Walker.....	70
On the Grapevine.....	66, 71
Weather Map-1 July to 30 September.....	72

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DIARY OF COMING EVENTS

December 11, Christmas Meeting, Films and Supper

February 19, 1982, Forum

April 23-General Meeting, Speaker Ken Walker on Native Bees.

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